



10 20 30 40 50 60
* * * * *
ATG TCC TAT GGC CCC TTC AGA GAT GTA CGG GGA CCC CCT ATG CAC CGA ACC CAA TAC GTT CAT
TAC AGG ATA CGG GGG AAG TCT CTA CAT GCC CCT GGG GGA TAC GTG GCT TGG GTT ATG CAA GTA
M S Y A P F R D V R G P P M H R T Q Y V H

70 80 90 100 110 120
* * * * *
TCC CCG TAT GAC CGT CCC GGT TGG AAC CCC CGG TTC TGC ATC ATC TCT GGG AAC CAG CTG CTC
AGG GGC ATA CTG GCA GGG CCA ACC TTG GGG GCC AAG ACG TAG TAG AGA CCC TTG GTC GAC GAG
S P Y D R P G W N P R F C I I S G N Q L L

130 140 150 160 170 180
* * * * *
ATG CTG GAT GAG GAT GAG ATA CAC CCC CTT CTG ATC CGC GAC CGG AGG AGC GAG TCC AGC CGA
TAC GAC CTA CTC CTA CTC TAT GTG GGG GAA GAC TAG GCG CTG GCC TCC TCG CTC AGG TCG GCT
M L D E D E I H P L L I R D R R S E S S R

190 200 210 220 230 240 250
* * * * *
AAC AAA CTG CTG AGA CGC ACC GTC TCT GTG CCA GTG GAG GGG CGG CCC CAC GGC GAG CAT GAA
TTG TTT GAC GAC TCT GCG TGG CAG AGA CAC GGT CAC CTC CCC GCC GGG GTG CCG CTC GTA CTT
N K L L R R T V S V P V E G R P H G E H E

260 270 280 290 300 310
* * * * *
TAC CAC TTG GGT CGC TCG AGG AGG AAG AGT GTC CCC GGG GGG AAA CAG TAC AGC ATG GAA GCC
ATG GTG AAC CCA GCG AGC TCC TCC TTC TCA CAG GGG CCC CCC TTT GTC ATG TCG TAC CTT CGG
Y H L G R S R R K S V P G G K Q Y S M E A

320 330 340 350 360 370
* * * * *
GCC CCC GCT GCG CCC TTC CGG CCC TCG CAA GGC TTC CTG AGC CGG AGG CTA AAA AGC TCC ATC
CGG GGG CGA CGC GGG AAG GCC GGG AGC GTT CCG AAG GAC TCG GCC TCC GAT TTT TCG AGG TAG
A P A A P F R P S Q G F L S R R L K S S I

380 390 400 410 420 430 440
* * * * *
AAA CGT ACA AAG TCA CAA CCC AAA CTT GAC CGG ACC AGC AGC TTT CGA CAG ATC CTG CCT CGC
TTT GCA TGT TTC AGT GTT GGG TTT GAA CTG GCC TGG TCG TCG AAA GCT GTC TAG GAC GGA GCG
K R T K S Q P K L D R T S S F R Q I L P R

450 460 470 480 490 500
* * * * *
TTC CGA AGT GCT GAC CAT GAC CGG GCC CGG CTG ATG CAG AGC TTC AAG GAG TCT CAC TCC CAT
AAG GCT TCA CGA CTG GTA CTG GCC CGG GCC GAC TAC GTC TCG AAG TTC CTC AGA GTG AGG GTA
F R S A D H D R A R L M Q S F K E S H S H

510 520 530 540 550 560
* * * * *
GAG TCC CTG CTG AGT CCC AGC AGT GCT GCT GAG GCC CTG GAG CTC AAC CTG GAT GAA GAC TCC
CTC AGG GAC GAC TCA GGG TCG TCA CGA CGA CTC CGG GAC CTC GAG TTG GAC CTA CTT CTG AGG
E S L L S P S S A A E A L E L N L D E D S

570 580 590 600 610 620 630
* * * * *
ATT ATC AAG CCA GTA CAC AGC TCC ATC CTG GGC CAG GAG TTC TGC TTT GAG GTA ACA ACA TCG
TAA TAG TTC GGT CAT GTG TCG AGG TAG GAC CCG GTC CTC AAG ACG AAA CTC CAT TGT TGT AGC
I I K P V H S S I L G Q E F C F E V T T S

640 650 660 670 680 690
* * * * *
TCT GGG ACA AAA TGT TTT GCC TGT CGG TCT GCA GCC GAA AGG GAC AAA TGG ATT GAG AAT CTA
AGA CCC TGT TTT ACA AAA CGG ACA GCC AGA CGT CGG CTT TCC CTG TTT ACC TAA CTC TTA GAT
S G T K C F A C R S A A E R D K W I E N L

FIGURE 1A

700 *	710 *	720 *	730 *	740 *	750 *
CAG AGG GCT GTG AAA CCC AAC AAG GAC AAC AGC CGC CGG GTA GAT AAC GTG CTG AAA CTA TGG					
GTC TCC CGA CAC TTT GGG TTG TTC CTG TTG TCG GCG GCC CAT CTA TTG CAC GAC TTT GAT ACC					
Q R A V K P N K D N S R R V D N V L K L W					
780 *	790 *	800 *	810 *	820 *	830 *
ATC ATA GAA GCT CGA GAG CTG CCC CCC AAG AAG CGA TAT TAC TGC GAG TTA TGC CTG GAC GAC					
TAG TAT CTT CGA GCT CTC GAC GGG GGG TTC TTC GCT ATA ATG ACG CTC AAT ACG GAC CTG CTG					
I I E A R E L P P K K R Y Y C E L C L D D					
820 *	830 *	840 *	850 *	860 *	870 *
ATG CTC TAT GCA CGG ACC ACT TCC AAG CCC CGC TCA GCC TCA GGA GAC ACT GTC TTT TGG GGC					
TAC GAG ATA CGT GCC TGG TGA AGG TTC GGG GCG AGT CGG AGT CCT CTG TGA CAG AAA ACC CCG					
M L Y A R T T S K P R S A S G D T V F W G					
890 *	900 *	910 *	920 *	930 *	940 *
GAG CAC TTC GAG TTT AAC AAC CTG CCT GCT GTC CGG GCG CTG CGG CTG CAT CTG TAC CGT GAC					
CTC GTG AAG CTC AAA TTG TTG GAC GGA CGA CAG GCC GCG GAC GCC GAC GTA GAC ATG GCA CTG					
E H F E F N N L P A V R A L R L H L Y R D					
950 *	960 *	970 *	980 *	990 *	1000 *
TCG GAC AAA AAG CGG AAG AAG GAC AAG GCA GGC TAC GTT GGC CTG GTG ACT GTT CCA GTG GCC					
AGC CTG TTT TTC GCC TTC TTC CTG TTC CGT CCG ATG CAA CCG GAC CAC TGA CAA GGT CAC CCG					
S D K K R K K D K A G Y V G L V T V P V A					
1010 *	1020 *	1030 *	1040 *	1050 *	1060 *
ACC CTG GCT GGG CGC CAC TTC ACA GAG CAG TGG TAC CCC GTG ACC CTG CCA ACA GGA AGT GGG					
TGG GAC CGA CCC GCG GTG AAG TGT CTC GTC ACC ATG GGG CAC TGG GAC GGT TGT CCT TCA CCC					
T L A G R H F T E Q W Y P V T L P T G S G					
1080 *	1090 *	1100 *	1110 *	1120 *	1130 *
GGC TCT GGG GGT ATG GGC TCG GGG GGA GGA GGG GGG TCA GGG GGC GGC TCA GGG GGC AAA GGG					
CCG AGA CCC CCA TAC CCG AGC CCC CCT CCT CCC CCC AGT CCC CCG CCG AGT CCC CCG TTT CCC					
G S G G M G S G G G G G S G G G S G G G K G					
1140 *	1150 *	1160 *	1170 *	1180 *	1190 *
AAA GGA GGC TGT CCT GCT GTG CGG CTG AAG GCC CGT TAC CAG ACA ATG AGT ATC CTG CCC ATG					
TTT CCT CCG ACA GGA CGA CAC GCC GAC TTC CGG GCA ATG GTC TGT TAC TCA TAG GAC GGG TAC					
K G G C P A V R L K A R Y Q T M S I L P M					
1200 *	1210 *	1220 *	1230 *	1240 *	1250 *
GAG CTA TAT AAG GAG TTT GCA GAA TAT GTG ACC AAC CAC TAC CGC ATG CTG TGT GCC GTG CTG					
CTC GAT ATA TTC CTC AAA CGT CTT ATA CAC TGG TTG GTG ATG GCG TAC GAC ACA CGG CAC GAC					
E L Y K E F A E Y V T N H Y R M L C A V L					
1270 *	1280 *	1290 *	1300 *	1310 *	1320 *
GAG CCC GCC CTC AAT GTC AAG GGC AAG GAG GAG GTC GCT AGT GCA CTG GTT CAC ATC CTG CAA					
CTC GGG CGG GAG TTA CAG TTC CCG TTC CTC CTC CAG CGA TCA CGT GAC CAA GTG TAG GAC GTT					
E P A L N V K G K E E V A S A L V H I L Q					
1330 *	1340 *	1350 *	1360 *	1370 *	1380 *
AGC ACA GGC AAG GCC AAG GAC TTC CTT TCA GAC ATG GCC ATG TCA GAG GTA GAC CGG TTC ATG					
TCG TGT CCG TTC CGG TTC CTG AAG GAA AGT CTG TAC CGG TAC AGT CTC CAT CTG GCC AAG TAC					
S T G K A K D F L S D M A M S E V D R F M					

FIGURE 1B



1390 *	1400 *	1410 *	1420 *	1430 *	1440 *
GAG CGG GAA CAC CTC ATA TTC CGC GAG AAC ACG CTC GCC ACT AAA GCC ATA GAA GAG TAT ATG					
CTC GCC CTT GTG GAG TAT AAG GCG CTC TTG TGC GAG CGG TGA TTT CGG TAT CTT CTC ATA TAC					
E R E H L I F R E N T L A T K A I E E Y M					
1450 *	1460 *	1470 *	1480 *	1490 *	1500 *
AGA CTG ATT GGC CAG AAA TAC CTC AAG GAT GCC ATT GGG GAG TTC ATC CGG GCT CTG TAT GAA					
TCT GAC TAA CCG GTC TTT ATG GAG TTC CTA CGG TAA CCC CTC AAG TAG GCC CGA GAC ATA CTT					
R L I G Q K Y L K D A I G E F I R A L Y E					
1520 *	1530 *	1540 *	1550 *	1560 *	1570 *
TCT GAG GAG AAC TGT GAA GTA GAC CCC ATC AAG TGC ACA GCG TCC AGT CTG GCA GAG CAC CAG					
AGA CTC CTC TTG ACA CTT CAT CTG GGG TAG TTC ACG TGT CGC AGG TCA GAC CGT CTC GTG GTC					
S E E N C E V D P I K C T A S S L A E H Q					
1580 *	1590 *	1600 *	1610 *	1620 *	1630 *
GCC AAC CTG CGG ATG TGC TGT GAG TTG GCC CTG TGC AAG GTG GTC AAC TCC CAT TGC GTG TTC					
CGG TTG GAC GCC TAC ACG ACA CTC AAC CGG GAC ACG TTC CAC CAG TTG AGG GTA ACG CAC AAG					
A N L R M C C E L A L C K V V N S H C V F					
1640 *	1650 *	1660 *	1670 *	1680 *	1690 *
CCG AGG GAG CTG AAG GAG GTG TTT GCA TCA TGG CGG CTG CGC TGT GCA GAG CGG GGC CGG GAG					
GGC TCC CTC GAC TTC CTC CAC AAA CGT AGT ACC GCC GAC GCG ACA CGT CTC GCC CCG GCC CTC					
P R E L K E V F A S W R L R C A E R G R E					
1710 *	1720 *	1730 *	1740 *	1750 *	1760 *
GAC ATT GCT GAC AGG CTG ATC AGC GCC TCG CTC TTC CTG CGC TTC CTC TGC CCG GCC ATC ATG					
CTG TAA CGA CTG TCC GAC TAG TCG CGG AGC GAG AAG GAC GCG AAG GAG ACG GGC CGG TAG TAC					
D I A D R L I S A S L F L R F L C P A I M					
1770 *	1780 *	1790 *	1800 *	1810 *	1820 *
TCG CCC AGT CTG TTT GGA CTG ATG CAG GAG TAC CCA GAT GAG CAG ACC TCA CGA ACC CTC ACC					
AGC GGG TCA GAC AAA CCT GAC TAC GTC CTC ATG GGT CTA CTC GTC TGG AGT GCT TGG GAG TGG					
S P S L F G L M Q E Y P D E Q T S R T L T					
1830 *	1840 *	1850 *	1860 *	1870 *	1880 *
CTC ATC GCC AAG GTT ATC CAG AAC CTG GCC AAC TTT TCC AAG TTT ACC TCA AAG GAG GAC TTC					
GAG TAG CGG TTC CAA TAG GTC TTG GAC CGG TTG AAA AGG TTC AAA TGG AGT TTC CTC CTG AAG					
L I A K V I Q N L A N F S K F T S K E D F					
1900 *	1910 *	1920 *	1930 *	1940 *	1950 *
CTG GGC TTC ATG AAC GAG TTT CTG GAG CTG GAG TGG GGT TCT ATG CAG CAA TTC TTG TAT GAG					
GAC CCG AAG TAC TTG CTC AAA GAC CTC GAC CTC ACC CCA AGA TAC GTC GTT AAG AAC ATA CTC					
L G F M N E F L E L E W G S M Q Q F L Y E					
1960 *	1970 *	1980 *	1990 *	2000 *	2010 *
ATA TCC AAC CTG GAC ACA CTG ACC AAC AGC AGC AGT TTT GAG GGC TAC ATA GAC TTG GGC CGC					
TAT AGG TTG GAC CTG TGT GAC TGG TTG TCG TCG TCA AAA CTC CCG ATG TAT CTG AAC CCG GCG					
I S N L D T L T N S S S F E G Y I D L G R					
2020 *	2030 *	2040 *	2050 *	2060 *	2070 *
GAG CTC TCC ACA CTT CAC GCC CTG CTC TGG GAG GTG CTG CCC CAG CTC AGC AAG GAA GCC CTC					
CTC CCG AAG GAA CGA CTC GAC CCC GTC GTG GAG GGT CTC GTC CCG CAC TTC ACA CCT CTC GAG					
E L S T L H A L L W E V L P Q L S K E A L					

FIGURE 1C



2080	2090	2100	2110	2120	2130	2140
* CTG AAG CTG GGC CCG CTG CCC CGG CTC CTC AGC GAC ATC AGC ACA GCC CTG AGG AAC CCT AAC GAC TTC GAC CCG GGC GAC GGG GCC GAG GAG TCG CTG TAG TCG TGT CGG GAC TCC TTG GGA TTG L K L G P L P R L L S D I S T A L R N P N						
2150	2160	2170	2180	2190	2200	
* ATC CAA AGG CAG CCG AGC CGC CAG AGC GAG CGC GCT CGG TCT CAG CCC ATG GTG CTG CGC GGG TAG GTT TCC GTC GGC TCG GCG GTC TCG CTC GCG CGA GCC AGA GTC GGG TAC CAC GAC GCG CCC I Q R Q P S R Q S E R A R S Q P M V L R G						
2210	2220	2230	2240	2250	2260	
* CCG TCA GCC GAG ATG CAG GGC TAC ATG ATG CGG GAC CTC AAC AGC TCC ATC GAC CTT CAG TCC GGC AGT CGG CTC TAC GTC CCG ATG TAC TAC GCC CTG GAG TTG TCG AGG TAG CTG GAA GTC AGG P S A E M Q G Y M M R D L N S S I D L Q S						
2270	2280	2290	2300	2310	2320	2330
* TTC ATG GCT CGA GGC CTC AAC AGC TCT ATG GAC ATG GCT CGC CTC CCC TCC CCA ACC AAG GAG AAG TAC CGA GCT CCG GAG TTG TCG AGA TAC CTG TAC CGA GCG GAG GGG AGG GGT TGG TTC CTC F M A R G L N S S M D M A R L P S P T K E						
2340	2350	2360	2370	2380	2390	
* AAA CCC CCG CCG CCC CCT CCC GGT GGG GGT AAA GAC CTG TTC TAT GTG AGC CGG CCA CCA CTG TTT GGG GGC GGC GGG GGA GGG CCA CCC CCA TTT CTG GAC AAG ATA CAC TCG GCC GGT GGT GAC K P P P P P P G G G K D L F Y V S R P P L						
2400	2410	2420	2430	2440	2450	
* GCC CGG TCC TCC CCA GCA TAC TGC ACG AGC AGC TCG GAC ATC ACA GAG CCG GAG CAG AAG ATG CGG GCC AGG AGG GGT CGT ATG ACG TGC TCG TCG AGC CTG TAG TGT CTC GGC CTC GTC TTC TAC A R S S P A Y C T S S S D I T E P E Q K M						
2460	2470	2480	2490	2500	2510	2520
* CTG AGT GTC AAC AAG AGT GTG TCC ATG CTG GAC CTG CAG GGC GAC GGG CCT GGG GGC CGC CTT GAC TCA CAG TTG TTC TCA CAC AGG TAC GAC CTG GAC GTC CCG CTG CCC GGA CCC CCG GCG GAA L S V N K S V S M L D L Q G D G P G G R L						
2530	2540	2550	12560	2570	2580	
* AAC AGC AGT AGT GTT TCC AAC CTG GCA GCT GTT GGG GAC CTG TTG CAC TCA AGC CAG GCT TCA TTG TCG TCA TCA CAA AGG TTG GAC CGT CGA CAA CCC CTG GAC AAC GTG AGT TCG GTC CGA AGT N S S S V S N L A A V G D L L H S S Q A S						
2590	2600	2610	2620	2630	2640	
* CTG ACA GCA GCC TTG GGG TTG CGG CCT GCA CCT GCC GGG CGC CTC TCC CAA GGG AGT GGC TCT GAC TGT CGT CGG AAC CCC AAC GCC GGA CGT GGA CGG CCC GCG GAG AGG GTT CCC TCA CCG AGA L T A A L G L R P A P A G R L S Q G S G S						
2650	2660	2670	2680	2690	2700	
* TCC ATC ACA GCA GCC GGC ATG CGC CTC AGC CAG ATG GGT GTC ACT ACG GAT GGT GTC CCC GCC AGG TAG TGT CGT CGG CCG TAC GCG GAG TCG GTC TAC CCA CAG TGA TGC CTA CCA CAG GGG CGG S I T A A G M R L S Q M G V T T D G V P A						
2710	2720	2730	2740	2750	2760	2770
* CAG CAA CTG CGC ATC CCT CTT TCC TTC CAG AAC CCT CTC TTC CAT ATG GCT GCC GAT GGA CCA GTC GTT GAC GCG TAG GGA GAA AGG AAG GTC TTG GGA GAG AAG GTA TAC CGA CGG CTA CCT GGT Q Q L R I P L S F Q N P L F H M A A D G P						

FIGURE 1D



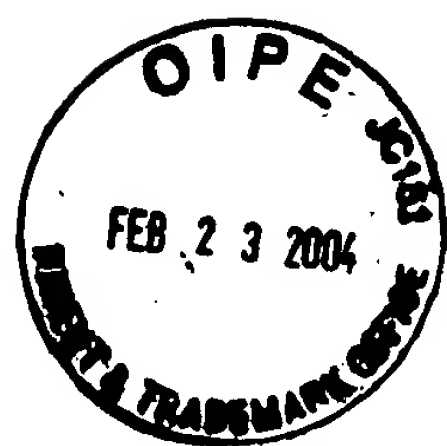
2780	2790	2800	2810	2820	2830
GGG CCC CCA GCA GGC CAT GGA GGG AGC AGT GGC CAT GGT CCA CCT TCC TCC CAT CAC CAC CAC	CCC GGG GGT CGT CCG GTA CCT CCC TCG TCA CCG GTA CCA GGT GGA AGG AGG GTA GTG GTG GTG	G G P P A G H G G S S G H G P P S S H H H H			
2840	2850	2860	2870	2880	2890
CAC CAC CAT CAC CAT CAC CGA GGG GGA GAA CCC CCA GGG GAC ACT TTT GCC CCG TTC CAT GGC	GTG GTG GTA GTG GTA GTG GCT CCC CCT CTT GGG GGT CCC CTG TGA AAA CGG GGC AAG GTA CCG	H H H H H H R G G E P P G D T F A P F H G			
2900	2910	2920	2930	2940	2950
TAT AGC AAG AGC GAG GAC CTC TCT ACA GGG GTC CCT AAG CCC CCT GCG GCC TCC ATC CTT CAC	ATA TCG TTC TCG CTC CTG GAG AGA TGT CCC CAG GGA TTC GGG GGA CGC CGG AGG TAG GAA GTG	Y S K S E D L S T G V P K P P A A S I L H			
2970	2980	2990	3000	3010	3020
AGC CAC AGC TAC AGT GAT GAG TTT GGA CCC TCT GGT ACT GAT TTT ACC CGT CGG CAG CTC TCA	TCG GTG TCG ATG TCA CTA CTC AAA CCT GGG AGA CCA TGA CTA AAA TGG GCA GCC GTC GAG AGT	S H S Y S D E F G P S G T D F T R R Q L S			
3030	3040	3050	3060	3070	3080
CTT CAG GAC AAC CTA CAG CAC ATG CTC TCC CCG CCC CAG ATC ACC ATC GGT CCC CAG AGG CCA	GAA GTC CTG TTG GAT GTC GTG TAC GAG AGG GGC GGG GTC TAG TGG TAG CCA GGG GTC TCC GGT	L Q D N L Q H M L S P P Q I T I G P Q R P			
3090	3100	3110	3120	3130	3140
GCT CCC TCA GGG CCA GGA GGG GGC AGT GGT GGG GGC AGT GGT GGG GGC GGT GGG GGC CAG CCA	CGA GGG AGT CCC GGT CCT CCC CCG TCA CCA CCC CCG TCA CCA CCC CCG CCA CCC CCG GTC GGT	A P S G P G G G S G G G S G G G G G G G G G Q P			
3160	3170	3180	3190	3200	3210
CCT CCC TTG CAG AGG GGC AAA TCT CAG CAG TTG ACA GTG AGT GCT GCC CAG AAA CCC CGG CCG	GGA GGG AAC GTC TCC CCG TTT AGA GTC GTC AAC TGT CAC TCA CGA CGG GTC TTT GGG GCC GGC	P P L Q R G K S Q Q L T V S A A Q K P R P			
3220	3230	3240	3250	3260	3270
TCC AGC GGG AAC CTA TTG CAG TCC CCG GAA CCA AGT TAT GGT CCT GCC CGT CCA CGG CAA CAG	AGG TCG CCC TTG GAT AAC GTC AGG GGC CTT GGT TCA ATA CCA GGA CGG GCA GGT GCC GTT GTC	S S G N L L Q S P E P S Y G P A R P R Q Q			
3280	3290	3300	3310	3320	3330
AGC CTC AGC AAA GAG GGC AGC ATT GGG GGC AGC GGG GGC AGC GGT GGC GGA GGG GGT GGG GGG	TCG GAG TCG TTT CTC CCG TCG TAA CCC CCG TCG CCC CCG TCG CCA CCG CCT CCC CCA CCC CCC	S L S K E G S I G G S G G S G G G G G G G G G			
3340	3350	3360	3370	3380	3390
CTC AAG CCC TCC ATC ACC AAG CAG CAT TCC CAG ACT CCA TCC ACG CTG AAC CCC ACG ATG CCG	GAG TTC GGG AGG TAG TGG TTC GTC GTA AGG GTC TGA GGT AGG TGC GAC TTG GGG TGC TAC GGC	L K P S I T K Q H S Q T P S T L N P T M P			
3410	3420	3430	3440	3450	3460
GCC TCG GAG CGG ACT GTA GCC TGG GTG TCC AAT ATG CCT CAC CTG TCC GCT GAC ATC GAG AGT	CGG AGC CTC GCC TGA CAT CGG ACC CAC AGG TTA TAC GGA GTG GAC AGG CGA CTG TAG CTC TCA	A S E R T V A W V S N M P H L S A D I E S			

FIGURE 1E



3470 *	3480 *	3490 *	3500 *	3510 *	3520 *
GCA CAC ATT GAG CGG GAA GAG TAC AAG CTG AAG GAG TAC TCG AAG TCC ATG GAC GAG AGC CGA	CGT GTG TAA CTC GCC CTT CTC ATG TTC GAC TTC CTC ATG AGC TTC AGG TAC CTG CTC TCG GCT	A H I E R E E Y K L K E Y S K S M D E S R			
3530 *	3540 *	3550 *	3560 *	3570 *	3580 *
CTG GAC AGG GTG AAG GAG TAC GAG GAG GAG ATC CAC TCA CTG AAG GAA AGG CTA CAC ATG TCC	GGA CAT GTG TAG CCT TTC CTT CAG TGA GTG GAT CTC CTC CTC GTA CTC CTT CAC CCT GTC CAG	L D R V K E Y E E E I H S L K E R L H M S			
3600 *	3610 *	3620 *	3630 *	3640 *	3650 *
AAC CGG AAG CTG GAA GAG TAC GAG CGG AGG CTG CTG TCC CAG GAA GAG CAG ACC AGC AAG ATC	TTG GCC TTC GAC CTT CTC ATG CTC GCC TCC GAC GAC AGG GTC CTT CTC GTC TGG TCG TTC TAG	N R K L E E Y E R R L L S Q E E Q T S K I			
3660 *	3670 *	3680 *	3690 *	3700 *	3710 *
CTG ATG CAG TAC CAA GCC CGC CTG GAG CAG AGC GAG AAG CGC TTG AGG CAG CAG CAG GTG GAG	GAC TAC GTC ATG GTT CGG GCG GAC CTC GTC TCG CTC TTC GCG AAC TCC GTC GTC GTC CAC CTC	L M Q Y Q A R L E Q S E K R L R Q Q Q V E			
3720 *	3730 *	3740 *	3750 *	3760 *	3770 *
AAG GAC TCC CAG ATC AAG AGC ATC ATT GGC AGG CTG ATG CTG GTG GAG GAG GAG CTG CGC CGG	TTC CTG AGG GTC TAG TTC TCG TAG TAA CCG TCC GAC TAC GAC CAC CTC CTC CTC GAC GCG GCC	K D S Q I K S I I G R L M L V E E E L R R			
3790 *	3800 *	3810 *	3820 *	3830 *	3840 *
GAC CAC CCC GCC ATG GCT GAG CCG CTG CCT GAA CCC AAG AAG AGG CTG CTC GAC GCT CAG AGA	CTG GTG GGG CGG TAC CGA CTC GGC GAC GGA CTT GGG TTC TTC TCC GAC GAG CTG CGA GTC TCT	D H P A M A E P L P E P K K R L L D A Q R			
3850 *	3860 *	3870 *	3880 *	3890 *	3900 *
GGC AGC TTC CCC CCT TGG GTC CAA CAA ACC CGC GTG TGA CGC TGG CCC CAC CTT GGA ACG GCC	CCG TCG AAG GGG GGA ACC CAG GTT GTT TGG GCG CAC ACT GCG ACC GGG GTG GAA CCT TGC CGG	G S F P P W V Q Q T R V * R W P H L G T A			
3910 *	3920 *	3930 *	3940 *	3950 *	3960 *
TGG CCC CCC CAG CCC CAC CCC CCC CAC CCC GGC TGC AGA TCA CAG AGA ACG GCG AGT TCC GGA	ACC GGG GGG GTC GGG GTG GGG GGG GTG GGG CCG ACG TCT AGT GTC TCT TGC CGC TCA AGG CCT	W P P Q P H P P H P G C R S Q R T A S S G			
3970 *	3980 *	3990 *	4000 *	4010 *	4020 *
ACA CCG CAG ACC ACT AGC CCA CCC AGC ATC ACA GAC CTC CTT CCC TGT GCA CCC TAC CCC GGC	TGT GGC GTC TGG TGA TCG GGT GGG TCG TAG TGT CTG GAG GAA GGG ACA CGT GGG ATG GGG CCG	T P Q T T S P P S I T D L L P C A P Y P G			
4040 *	4050 *	4060 *	4070 *	4080 *	4090 *
CCA CCC AGC GTC ACA GAC CTC CTT CCC AGT GCA CCC GAC CCT GGA ACA TCA CCA ACC ACC AGG	GGT GGG TCG CAG TGT CTG GAG GAA GGG TCA CGT GGG CTG GGA CCT TGT AGT GGT TGG TGG TCC	P P S V T D L L P S A P D P G T S P T T R			
4100 *	4110 *	4120 *	4130 *	4140 *	4150 *
ACT GGA CGT CAC CAA GGG ACA GCG GGA TTG TCT CCC TTA ACG CCT CCT TGG GGC ACC CAT CTG	TGA CCT GCA GTG GTT CCC TGT CGC CCT AAC AGA GGG AAT TGC GGA GGA ACC CCG TGG GTA GAC	T G R H Q G T A G L S P L T P P W G T H L			

FIGURE 1F



4160		4170		4180		4190		4200		4210		4220								
*		*		*		*		*		*		*								
TCA	ACC	CCA	CTG	CTC	CAT	TCC	AGG	AGG	GAG	AGT	GGG	ACC	CTC	AGC	TGC	CCT	CTC	ACC	CCA	GGA
AGT	TGG	GGT	GAC	GAG	GTA	AGG	TCC	TCC	CTC	TCA	CCC	TGG	GAG	TCG	ACG	GGA	GAG	TGG	GGT	CCT
S	T	P	L	L	H	S	R	R	E	S	G	T	L	S	C	P	L	T	P	G
		4230				4240				4250			4260				4270			
		*				*				*			*				*			
CAC	CAC	CTA	CCC	CAC	ACA	GAC	CCC	TTC	ACT	CTG	GGG	TGC	TAT	CCC	CAT	CCT				
GTG	GTG	GAT	GGG	GTG	TGT	CTG	GGG	AAG	TGA	GAC	CCC	ACG	ATA	GGG	GTA	GGA				
H	H	L	P	H	T	D	P	F	T	L	G	C	Y	P	H	P				

FIGURE 1G



			10				20				30				40				50				60
			*				*				*				*				*				*
TAA	GGC	CCC	CCA	CCC	CGA	CCC	CGT	CAG	GGG	GCT	CCG	GTT	CAG	GTT	CCT	TGC	CCC	CTC	CTT	CCC			
ATT	CCG	GGG	GGT	GGG	GCT	GGG	GCA	GTC	CCC	CGA	GGC	CAA	GTC	CAA	GGA	ACG	GGG	GAG	GAA	GGG			
*	G	P	P	P	R	P	R	Q	G	A	P	V	Q	V	P	C	P	L	L	P			
			70				80								110								120
			*				*								*								*
ACC	GCC	AGC	CTC	TCC	GCC	GCC	GCT	GCT	CTT	CCT	GCT	GCT	TTC	CGG	GGG	AAT	ACC	ACT	TGG	GTC			
TGG	CGG	TCG	GAG	AGG	CGG	CGG	CGA	CGA	GAA	GGA	CGA	CGA	AAG	GCC	CCC	TTA	TGG	TGA	ACC	CAG			
T	A	S	L	S	A	A	A	A	L	P	A	A	F	R	G	N	T	T	W	V			
			130				140								170								180
			*				*								*								*
GCT	CGA	GGA	GGA	AGA	GTG	TCC	CCG	GGG	GGG	AAA	CAG	TAC	AGC	ATG	GAA	GCC	GCC	CCC	GCT	GCG			
CGA	GCT	CCT	CCT	TCT	CAC	AGG	GGC	CCC	CCC	TTT	GTC	ATG	TCG	TAC	CTT	CGG	CGG	GGG	CGA	CGC			
A	R	G	G	R	V	S	P	G	G	K	Q	Y	S	M	E	A	A	P	A	A			
			190				200								230								250
			*				*								*								*
CCC	TTC	CGG	CCC	TCG	CAA	GGC	TTC	CTG	AGC	CGG	AGG	CTA	AAA	AGC	TCC	ATC	AAA	CGT	ACA	AAG			
GGG	AAG	GCC	GGG	AGC	GTT	CCG	AAG	GAC	TCG	GCC	TCC	GAT	TTT	TCG	AGG	TAG	TTT	GCA	TGT	TTC			
P	F	R	P	S	Q	G	F	L	S	R	R	L	K	S	S	I	K	R	T	K			
			260				270								300								310
			*				*								*								*
TCA	CAA	CCC	AAA	CTT	GAC	CGG	ACC	AGC	AGC	TTT	CGA	CAG	ATC	CTG	CCT	CGC	TTC	CGA	AGT	GCT			
AGT	GTT	GGG	TTT	GAA	CTG	GCC	TGG	TCG	TCG	AAA	GCT	GTC	TAG	GAC	GGA	GCG	AAG	GCT	TCA	CGA			
S	Q	P	K	L	D	R	T	S	S	F	R	Q	I	L	P	R	F	R	S	A			
			320				330								360								370
			*				*								*								*
GAC	CAT	GAC	CGG	GCC	CGG	CTG	ATG	CAG	AGC	TTC	AAG	GAG	TCT	CAC	TCC	CAT	GAG	TCC	CTG	CTG			
CTG	GTA	CTG	GCC	CGG	GCC	GAC	TAC	GTC	TCG	AAG	TTC	CTC	AGA	GTG	AGG	GTA	CTC	AGG	GAC	GAC			
D	H	D	R	A	R	L	M	Q	S	F	K	E	S	H	S	H	E	S	L	L			
			380				390								420								440
			*				*								*								*
AGT	CCC	AGC	AGT	GCT	GCT	GAG	GCC	CTG	GAG	CTC	AAC	CTG	GAT	GAA	GAC	TCC	ATT	ATC	AAG	CCA			
TCA	GGG	TCG	TCA	CGA	CGA	CTC	CGG	GAC	CTC	GAG	TTG	GAC	CTA	CTT	CTG	AGG	TAA	TAG	TTC	GGT			
S	P	S	S	A	A	E	A	L	E	L	N	L	D	E	D	S	I	I	K	P			
			450				460								480								500
			*				*								*								*
GTA	CAC	AGC	TCC	ATC	CTG	GGC	CAG	GAG	TTC	TGC	TTT	GAG	GTA	ACA	ACA	TCG	TCT	GGG	ACA	AAA			
CAT	GTG	TCG	AGG	TAG	GAC	CCG	GTC	CTC	AAG	ACG	AAA	CTC	CAT	TGT	TGT	AGC	AGA	CCC	TGT	TTT			
V	H	S	S	I	L	G	Q	E	F	C	F	E	V	T	T	S	S	G	T	K			
			510				520								550								560
			*				*								*								*
TGT	TTT	GCC	TGT	CGG	TCT	GCA	GCC	GAA	AGG	GAC	AAA	TGG	ATT	GAG	AAT	CTA	CAG	AGG	GCT	GTG			
ACA	AAA	CGG	ACA	GCC	AGA	CGT	CGG	CTT	TCC	CTG	TTT	ACC	TAA	CTC	TTA	GAT	GTC	TCC	CGA	CAC			
C	F	A	C	R	S	A	A	E	R	D	K	W	I	E	N	L	Q	R	A	V			
			570				580								610								630
			*				*								*								*
AAA	CCC	AAC	AAG	GAC	AAC	AGC	CGC	CGG	GTA	GAT	AAC	GTG	CTG	AAA	CTA	TGG	ATC	ATA	GAA	GCT			
TTT	GGG	TTG	TTC	CTG	TTG	TCG	GCG	GCC	CAT	CTA	TTG	CAC	GAC	TTT	GAT	ACC	TAG	TAT	CTT	CGA			
K	P	N	K	D	N	S	R	R	V	D	N	V	L	K	L	W	I	I	E	A			

FIGURE 2A



FIGURE 2B

1330	1340	1350	1360	1370	1380
CAG AAA TAC CTC AAG GAT GCC ATT GGG GAG TTC ATC CGG GCT CTG TAT GAA TCT GAG GAG AAC					
GTC TTT ATG GAG TTC CTA CGG TAA CCC CTC AAG TAG GCC CGA GAC ATA CTT AGA CTC CTC TTG					
Q K Y L K D A I G E F I R A L Y E S E E N					
1390	1400	1410	1420	1430	1440
TGT GAA GTA GAC CCC ATC AAG TGC ACA GCG TCC AGT CTG GCA GAG CAC CAG GCC AAC CTG CGG					
ACA CTT CAT CTG GGG TAG TTC ACG TGT CGC AGG TCA GAC CGT CTC GTG GTC CGG TTG GAC GCC					
C E V D P I K C T A S S L A E H Q A N L R					
1450	1460	1470	1480	1490	1500
ATG TGC TGT GAG TTG GCC CTG TGC AAG GTG GTC AAC TCC CAT TGC GTG TTC CCG AGG GAG CTG					
TAC ACG ACA CTC AAC CGG GAC ACG TTC CAC CAG TTG AGG GTA ACG CAC AAG GGC TCC CTC GAC					
M C C E L A L C K V V N S H C V F P R E L					
1520	1530	1540	1550	1560	1570
AAG GAG GTG TTT GCA TCA TGG CGG CTG CGC TGT GCA GAG CGG GGC CGG GAG GAC ATT GCT GAC					
TTC CTC CAC AAA CGT AGT ACC GCC GAC GCG ACA CGT CTC GCC CCG GCC CTC CTG TAA CGA CTG					
K E V F A S W R L R C A E R G R E D I A D					
1580	1590	1600	1610	1620	1630
AGG CTG ATC AGC GCC TCG CTC TTC CTG CGC TTC CTC TGC CCG GCC ATC ATG TCG CCC AGT CTG					
TCC GAC TAG TCG CGG AGC GAG AAG GAC GCG AAG GAG ACG GGC CGG TAG TAC AGC GGG TCA GAC					
R L I S A S L F L R F L C P A I M S P S L					
1640	1650	1660	1670	1680	1690
TTT GGA CTG ATG CAG GAG TAC CCA GAT GAG CAG ACC TCA CGA ACC CTC ACC CTC ATC GCC AAG					
AAA CCT GAC TAC GTC CTC ATG GGT CTA CTC GTC TGG AGT GCT TGG GAG TGG GAG TAG CGG TTC					
F G L M Q E Y P D E Q T S R T L T L I A K					
1710	1720	1730	1740	1750	1760
GTT ATC CAG AAC CTG GCC AAC TTT TCC AAG TTT ACC TCA AAG GAG GAC TTC CTG GGC TTC ATG					
CAA TAG GTC TTG GAC CGG TTG AAA AGG TTC AAA TGG AGT TTC CTC CTG AAG GAC CCG AAG TAC					
V I Q N L A N F S K F T S K E D F L G F M					
1770	1780	1790	1800	1810	1820
AAC GAG TTT CTG GAG CTG GAG TGG GGT TCT ATG CAG CAA TTC TTG TAT GAG ATA TCC AAC CTG					
TTG CTC AAA GAC CTC GAC CTC ACC CCA AGA TAC GTC GTT AAG AAC ATA CTC TAT AGG TTG GAC					
N E F L E L E W G S M Q Q F L Y E I S N L					
1830	1840	1850	1860	1870	1880
GAC ACA CTG ACC AAC AGC AGC AGT TTT GAG GGC TAC ATA GAC TTG GGC CGC GAG CTC TCC ACA					
CTG TGT GAC TGG TTG TCG TCG TCA AAA CTC CCG ATG TAT CTG AAC CCG GCG CTC GAG AGG TGT					
D T L T N S S S F E G Y I D L G R E L S T					
1900	1910	1920	1930	1940	1950
CTT CAC GCC CTG CTC TGG GAG GTG CTG CCC CAG CTC AGC AAG GAA GCC CTC CTG AAG CTG GGC					
GAA GTG CGG GAC GAG ACC CTC CAC GAC GGG GTC GAG TCG TTC CTT CGG GAG GAC TTC GAC CCG					
L H A L L W E V L P Q L S K E A L L K L G					

FIGURE 2C



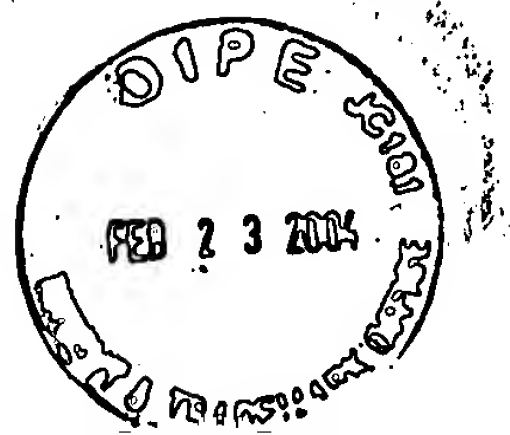
1960 *			1970 *			1980 *			1990 *			2000 *			2010 *					
CCG	CTG	CCC	CGG	CTC	CTC	AGC	GAC	ATC	AGC	ACA	GCC	CTG	AGG	AAC	CCT	AAC	ATC	CAA	AGG	CAG
GGC	GAC	GGG	GCC	GAG	GAG	TCG	CTG	TAG	TCG	TGT	CGG	GAC	TCC	TTG	GGA	TTG	TAG	GTT	TCC	GTC
P	L	P	R	L	L	S	D	I	S	T	A	L	R	N	P	N	I	Q	R	Q
2020 *			2030 *			2040 *			2050 *			2060 *			2070 *					
CCG	AGC	CGC	CAG	AGC	GAG	CGC	GCT	CGG	TCT	CAG	CCC	ATG	GTG	CTG	CGC	GGG	CCG	TCA	GCC	GAG
GGC	TCG	GCG	GTC	TCG	CTC	GCG	CGA	GCC	AGA	GTC	GGG	TAC	CAC	GAC	GCG	CCC	GGC	AGT	CGG	CTC
P	S	R	Q	S	E	R	A	R	S	Q	P	M	V	L	R	G	P	S	A	E
2080 *			2090 *			2100 *			2110 *			2120 *			2130 *			2140 *		
ATG	CAG	GGC	TAC	ATG	ATG	CGG	GAC	CTC	AAC	AGC	TCC	ATC	GAC	CTT	CAG	TCC	TTC	ATG	GCT	CGA
TAC	GTC	CCG	ATG	TAC	TAC	GCC	CTG	GAG	TTG	TCG	AGG	TAG	CTG	GAA	GTC	AGG	AAG	TAC	CGA	GCT
M	Q	G	Y	M	M	R	D	L	N	S	S	I	D	L	Q	S	F	M	A	R
2150 *			2160 *			2170 *			2180 *			2190 *			2200 *					
GGC	CTC	AAC	AGC	TCT	ATG	GAC	ATG	GCT	CGC	CTC	CCC	TCC	CCA	ACC	AAG	GAG	AAA	CCC	CCG	CCG
CCG	GAG	TTG	TCG	AGA	TAC	CTG	TAC	CGA	GCG	GAG	GGG	AGG	GGT	TGG	TTC	CTC	TTT	GGG	GGC	GGC
G	L	N	S	S	M	D	M	A	R	L	P	S	P	T	K	E	K	P	P	P
2210 *			2220 *			2230 *			2240 *			2250 *			2260 *					
CCC	CCT	CCC	GGT	GGG	GGT	AAA	GAC	CTG	TTC	TAT	GTG	AGC	CGG	CCA	CCA	CTG	GCC	CGG	TCC	TCC
GGG	GGA	GGG	CCA	CCC	CCA	TTT	CTG	GAC	AAG	ATA	CAC	TCG	GCC	GGT	GGT	GAC	CGG	GCC	AGG	AGG
P	P	P	G	G	G	K	D	L	F	Y	V	S	R	P	P	L	A	R	S	S
2270 *			2280 *			2290 *			2300 *			2310 *			2320 *			2330 *		
CCA	GCA	TAC	TGC	ACG	AGC	AGC	TCG	GAC	ATC	ACA	GAG	CCG	GAG	CAG	AAG	ATG	CTG	AGT	GTC	AAC
GGT	CGT	ATG	ACG	TGC	TCG	TCG	AGC	CTG	TAG	TGT	CTC	GGC	CTC	GTC	TTC	TAC	GAC	TCA	CAG	TTG
P	A	Y	C	T	S	S	S	D	I	T	E	P	E	Q	K	M	L	S	V	N
2340 *			2350 *			2360 *			2370 *			2380 *			2390 *					
AAG	AGT	GTG	TCC	ATG	CTG	GAC	CTG	CAG	GGC	GAC	GGG	CCT	GGG	GGC	CGC	CTT	AAC	AGC	AGT	AGT
TTC	TCA	CAC	AGG	TAC	GAC	CTG	GAC	GTC	CCG	CTG	CCC	GGA	CCC	CCG	GCG	GAA	TTG	TCG	TCA	TCA
K	S	V	S	M	L	D	L	Q	G	D	G	P	G	G	R	L	N	S	S	S
2400 *			2410 *			2420 *			2430 *			2440 *			2450 *					
GTT	TCC	AAC	CTG	GCA	GCT	GTT	GGG	GAC	CTG	TTG	CAC	TCA	AGC	CAG	GCT	TCA	CTG	ACA	GCA	GCC
CAA	AGG	TTG	GAC	CGT	CGA	CAA	CCC	CTG	GAC	AAC	GTG	AGT	TCG	GTC	CGA	AGT	GAC	TGT	CGT	CGG
V	S	N	L	A	A	V	G	D	L	L	H	S	S	Q	A	S	L	T	A	A
2460 *			2470 *			2480 *			2490 *			2500 *			2510 *			2520 *		
TTG	GGG	TTG	CGG	CCT	GCA	CCT	GCC	GGG	CGC	CTC	TCC	CAA	GGG	AGT	GGC	TCT	TCC	ATC	ACA	GCA
AAC	CCC	AAC	GCC	GGA	CGT	GGA	CGG	CCC	GCG	GAG	AGG	GTT	CCC	TCA	CCG	AGA	AGG	TAG	TGT	CGT
L	G	L	R	P	A	P	A	G	R	L	S	Q	G	S	G	S	S	I	T	A
2530 *			2540 *			2550 *			12560 *			2570 *			2580 *					
GCC	GGC	ATG	CGC	CTC	AGC	CAG	ATG	GGT	GTC	ACT	ACG	GAT	GGT	GTC	CCC	GCC	CAG	CAA	CTG	CGC
CGG	CCG	TAC	GCG	GAG	TCG	GTC	TAC	CCA	CAG	TGA	TGC	CTA	CCA	CAG	GGG	CGG	GTC	GTT	GAC	GCG
A	G	M	R	L	S	Q	M	G	V	T	T	D	G	V	P	A	Q	Q	L	R

FIGURE 2D



2590	2600	2610	2620	2630	2640
ATC CCT CTT TCC TTC CAG AAC CCT CTC TTC CAT ATG GCT GCC GAT GGA CCA GGG CCC CCA GCA					
TAG GGA GAA AGG AAG GTC TTG GGA GAG AAG GTA TAC CGA CGG CTA CCT GGT CCC GGG GGT CGT					
I P L S F Q N P L F H M A A D G P G P P A					
2650	2660	2670	2680	2690	2700
GGC CAT GGA GGG AGC AGT GGC CAT GGT CCA CCT TCC TCC CAT CAC CAC CAC CAC CAT CAC					
CCG GTA CCT CCC TCG TCA CCG GTA CCA GGT GGA AGG AGG GTA GTG GTG GTG GTG GTG GTG GTG					
G H G G S S G H G P P S S H H H H H H H H					
2710	2720	2730	2740	2750	2760
CAT CAC CGA GGG GGA GAA CCC CCA GGG GAC ACT TTT GCC CCG TTC CAT GGC TAT AGC AAG AGC					
GTA GTG GCT CCC CCT CTT GGG GGT CCC CTG TGA AAA CGG GGC AAG GTA CCG ATA TCG TTC TCG					
H H R G G E P P G D T F A P F H G Y S K S					
2780	2790	2800	2810	2820	2830
GAG GAC CTC TCT ACA GGG GTC CCT AAG CCC CCT GCG GCC TCC ATC CTT CAC AGC CAC AGC TAC					
CTC CTG GAG AGA TGT CCC CAG GGA TTC GGG GGA CGC CGG AGG TAG GAA GTG TCG GTG TCG ATG					
E D L S T G V P K P P A A S I L H S H S Y					
2840	2850	2860	2870	2880	2890
AGT GAT GAG TTT GGA CCC TCT GGT ACT GAT TTT ACC CGT CGG CAG CTC TCA CTT CAG GAC AAC					
TCA CTA CTC AAA CCT GGG AGA CCA TGA CTA AAA TGG GCA GCC GTC GAG AGT GAA GTC CTG TTG					
S D E F G P S G T D F T R R Q L S L Q D N					
2900	2910	2920	2930	2940	2950
CTA CAG CAC ATG CTC TCC CCG CCC CAG ATC ACC ATC GGT CCC CAG AGG CCA GCT CCC TCA GGG					
GAT GTC GTG TAC GAG AGG GGC GGG GTC TAG TGG TAG CCA GGG GTC TCC GGT CGA GGG AGT CCC					
L Q H M L S P P Q I T I G P Q R P A P S G					
2970	2980	2990	3000	3010	3020
CCA GGA GGG GGC AGT GGT GGG GGC AGT GGT GGG GGC GGT GGG GGC CAG CCA CCT CCC TTG CAG					
GGT CCT CCC CCG TCA CCA CCC CCG TCA CCA CCC CCG CCA CCC CCG GTC GGT GGA GGG AAC GTC					
P G G G S G G G S G G G G G G G G Q P P P L Q					
3030	3040	3050	3060	3070	3080
AGG GGC AAA TCT CAG CAG TTG ACA GTG AGT GCT GCC CAG AAA CCC CGG CCG TCC AGC GGG AAC					
TCC CCG TTT AGA GTC GTC AAC TGT CAC TCA CGA CGG GTC TTT GGG GCC GGC AGG TCG CCC TTG					
R G K S Q Q L T V S A A Q K P R P S S G N					
3090	3100	3110	3120	3130	3140
CTA TTG CAG TCC CCG GAA CCA AGT TAT GGT CCT GCC CGT CCA CGG CAA CAG AGC CTC AGC AAA					
GAT AAC GTC AGG GGC CTT GGT TCA ATA CCA GGA CGG GCA GGT GCC GTT GTC TCG GAG TCG TTT					
L L Q S P E P S Y G P A R P R Q Q S L S K					
3160	3170	3180	3190	3200	3210
GAG GGC AGC ATT GGG GGC AGC GGG GGC AGC GGT GGC GGA GGG GGT GGG GGG CTC AAG CCC TCC					
CTC CCG TCG TAA CCC CCG TCG CCC CCG TCG CCA CCG CCT CCC CCA CCC CCC GAG TTC GGG AGG					
E G S I G G S G G S G G G G G G G L K P S					
3220	3230	3240	3250	3260	3270
ATC ACC AAG CAG CAT TCC CAG ACT CCA TCC ACG CTG AAC CCC ACG ATG CCG GCC TCG GAG CGG					
TAG TGG TTC GTC GTA AGG GTC TGA GGT AGG TGC GAC TTG GGG TGC TAC GGC CGG AGC CTC GCC					
I T K Q H S Q T P S T L N P T M P A S E R					

FIGURE 2E



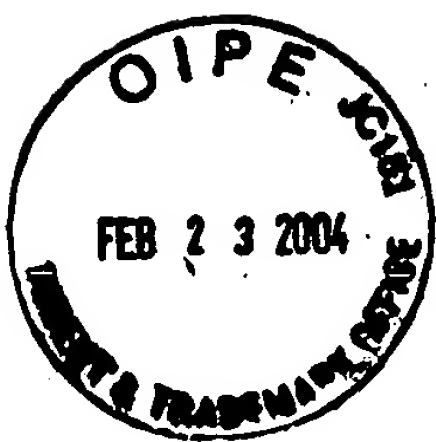
3280	3290	3300	3310	3320	3330
ACT GTA GCC TGG GTG TCC AAT ATG CCT CAC CTG TCC GCT GAC ATC GAG AGT GCA CAC ATT GAG					
TGA CAT CGG ACC CAC AGG TTA TAC GGA GTG GAC AGG CGA CTG TAG CTC TCA CGT GTG TAA CTC					
T V A W V S N M P H L S A D I E S A H I E					
3340	3350	3360	3370	3380	3390
CGG GAA GAG TAC AAG CTG AAG GAG TAC TCG AAG TCC ATG GAC GAG AGC CGA CTG GAC AGG GTG					
GCC CTT CTC ATG TTC GAC TTC CTC ATG AGC TTC AGG TAC CTG CTC TCG GCT GAC CTG TCC CAC					
R E E Y K L K E Y S K S M D E S R L D R V					
3410	3420	3430	3440	3450	3460
AAG GAG TAC GAG GAG GAG ATC CAC TCA CTG AAG GAA AGG CTA CAC ATG TCC AAC CGG AAG CTG					
TTC CTC ATG CTC CTC CTC TAG GTG AGT GAC TTC CTT TCC GAT GTG TAC AGG TTG GCC TTC GAC					
K E Y E E E I H S L K E R L H M S N R K L					
3470	3480	3490	3500	3510	3520
GAA GAG TAC GAG CGG AGG CTG CTG TCC CAG GAA GAG CAG ACC AGC AAG ATC CTG ATG CAG TAC					
CTT CTC ATG CTC GCC TCC GAC GAC AGG GTC CTT CTC GTC TGG TCG TTC TAG GAC TAC GTC ATG					
E E Y E R R L L S Q E E Q T S K I L M Q Y					
3530	3540	3550	3560	3570	3580
CAA GCC CGC CTG GAG CAG AGC GAG AAG CGC TTG AGG CAG CAG CAG GTG GAG AAG GAC TCC CAG					
GTT CGG GCG GAC CTC GTC TCG CTC TTC GCG AAC TCC GTC GTC GTC CAC CTC TTC CTG AGG GTC					
Q A R L E Q S E K R L R Q Q Q V E K D S Q					
3600	3610	3620	3630	3640	3650
ATC AAG AGC ATC ATT GGC AGG CTG ATG CTG GTG GAG GAG GAG CTG CGC CGG GAC CAC CCC GCC					
TAG TTC TCG TAG TAA CCG TCC GAC TAC GAC CAC CTC CTC CTC GAC GCG GCC CTG GTG GGG CGG					
I K S I I G R L M L V E E E L R R D H P A					
3660	3670	3680	3690	3700	3710
ATG GCT GAG CCG CTG CCT GAA CCC AAG AAG AGG CTG CTC GAC GCT CAG AGA GGC AGC TTC CCC					
TAC CGA CTC GGC GAC GGA CTT GGG TTC TTC TCC GAC GAG CTG CGA GTC TCT CCG TCG AAG GGG					
M A E P L P E P K K R L L D A Q R G S F P					
3720	3730	3740	3750	3760	3770
CCT TGG GTC CAA CAA ACC CGC GTG TGA CGC TGG CCC CAC CTT GGA ACG GCC TGG CCC CCC CAG					
GGA ACC CAG GTT GTT TGG GCG CAC ACT GCG ACC GGG GTG GAA CCT TGC CGG ACC GGG GGG GTC					
P W V Q Q T * R V R W P H L G T A W P P Q					
3790	3800	3810	3820	3830	3840
CCC CAC CCC CCC CAC CCC GGC TGC AGA TCA CAG AGA ACG GCG AGT TCC GGA ACA CCG CAG ACC					
GGG GTG GGG GGG GTG GGG CCG ACG TCT AGT GTC TCT TGC CGC TCA AGG CCT TGT GGC GTC TGG					
P H P P H P G C R S Q R T A S S G T P Q T					
3850	3860	3870	3880	3890	3900
ACT AGC CCA CCC AGC ATC ACA GAC CTC CTT CCC TGT GCA CCC TAC CCC GGC CCA CCC AGC GTC					
TGA TCG GGT GGG TCG TAG TGT CTG GAG GAA GGG ACA CGT GGG ATG GGG CCG GGT GGG TCG CAG					
T S P P S I T D L L P C A P Y P G P P S V					

FIGURE 2F



3910		3920		3930		3940		3950		3960		
*		*		*		*		*		*		
ACA GAC CTC CTT CCC AGT GCA CCC GAC CCT GGA ACA TCA CCA ACC ACC AGG ACT GGA CGT CAC												
TGT CTG GAG GAA GGG TCA CGT GGG CTG GGA CCT TGT AGT GGT TGG TGG TCC TGA CCT GCA GTG												
T D L L P S A P D P G T S P T T R T G R H												
3970		3980		3990		4000		4010		4020		4030
*		*		*		*		*		*		*
CAA GGG ACA GCG GGA TTG TCT CCC TTA ACG CCT CCT TGG GGC ACC CAT CTG TCA ACC CCA CTG												
GTT CCC TGT CGC CCT AAC AGA GGG AAT TGC GGA GGA ACC CCG TGG GTA GAC AGT TGG GGT GAC												
Q G T A G L S P L T P P W G T H L S T P L												
	4040		4050		4060		4070		4080		4090	
	*		*		*		*		*		*	
CTC CAT TCC AGG AGG GAG AGT GGG ACC CTC AGC TGC CCT CTC ACC CCA GGA CAC CAC CTA CCC												
GAG GTA AGG TCC TCC CTC TCA CCC TGG GAG TCG ACG GGA GAG TGG GGT CCT GTG GTG GAT GGG												
L H S R R E S G T L S C P L T P G H H L P												
4100		4110		4120		4130						
*		*		*		*						
CAC ACA GAC CCC TTC ACT CTG GGG TGC TAT CCC CAT CCT												
GTG TGT CTG GGG AAG TGA GAC CCC ACG ATA GGG GTA GGA												
H T D P F T L G C Y P H P												

FIGURE 2G



A circular stamp with the text "OIPF" at the top and "FEB 23 2004" in the center. The bottom half of the circle contains the text "OFFICE OF INTERNATIONAL POLICE AND FIRE" in a curved arrangement.

FIGURE 3A

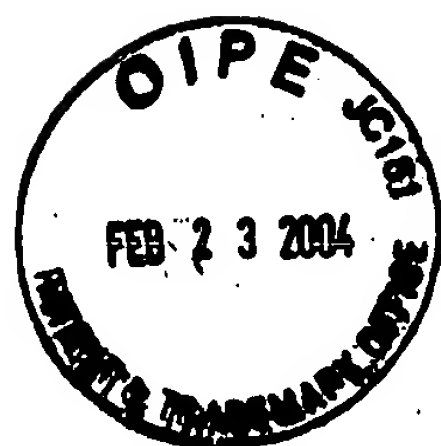
640										650										660										670										680										690																			
*										*										*										*										*										*																			
CTG	CGG	CTG	CAT	CTG	TAC	CGT	GAC	TCG	GAC	AAA	AAG	CGG	AAG	AAG	GAC	AAG	GCA	GGC	TAC	GTT	GAC	GCC	GAC	GTA	GAC	ATG	GCA	CTG	AGC	CTG	TTT	TTC	GCC	TTC	TTC	CTG	TTC	CGT	CCG	ATG	CAA																												
L	R	L	H	L	Y	R	D	S	D	K	K	R	K	K	D	K	A	G	Y	V																																																	
700										710										720										730										740										750																			
*										*										*										*										*										*																			
GGC	CTG	GTG	ACT	GTT	CCA	GTG	GCC	ACC	CTG	GCT	GGG	CGC	CAC	TTC	ACA	GAG	CAG	TGG	TAC	CCC	CCG	GAC	CAC	TGA	CAA	GGT	CAC	CGG	TGG	GAC	CGA	CCC	GCG	GTG	AAG	TGT	CTC	GTC	ACC	ATG	GGG																												
G	L	V	T	V	P	V	A	T	L	A	G	R	H	F	T	E	Q	W	Y	P																																																	
780										790										800										810										820										830																			
*										*										*										*										*										*																			
GTG	ACC	CTG	CCA	ACA	GGA	AGT	GGG	GGC	TCT	GGG	GGT	ATG	GGC	TCG	GGG	GGA	GGA	GGG	GGG	TCA	CAC	TGG	GAC	GGT	TGT	CCT	TCA	CCC	CCG	AGA	CCC	CCA	TAC	CCG	AGC	CCC	CCT	CCT	CCC	CCC	AGT																												
V	T	L	P	T	G	S	G	G	S	G	G	M	G	S	G	G	G	G	S																																																		
820										830										840										850										860										870										880									
*										*										*										*										*										*																			
GGG	GGC	GGC	TCA	GGG	GGC	AAA	GGG	AAA	GGA	GGC	TGT	CCT	GCT	GTG	CGG	CTG	AAG	GCC	CGT	TAC	CCC	CCG	CCG	AGT	CCC	CCG	TTT	CCC	TTT	CCT	CCG	ACA	GGA	CGA	CAC	GCC	GAC	TTC	CGG	GCA	ATG																												
G	G	G	S	G	G	K	G	K	G	G	C	P	A	V	R	L	K	A	R	Y																																																	
890										900										910										920										930										940																			
*										*										*										*										*										*																			
CAG	ACA	ATG	AGT	ATC	CTG	CCC	ATG	GAG	CTA	TAT	AAG	GAG	TTT	GCA	GAA	TAT	GTG	ACC	AAC	CAC	GTC	TGT	TAC	TCA	TAG	GAC	GGG	TAC	CTC	GAT	ATA	TTC	CTC	AAA	CGT	CTT	ATA	CAC	TGG	TTG	GTG																												
Q	T	M	S	I	L	P	M	E	L	Y	K	E	F	A	E	Y	V	T	N	H																																																	
950										960										970										980										990										1000																			
*										*										*										*										*										*																			
TAC	CGC	ATG	CTG	TGT	GCC	GTG	CTG	GAG	CCC	GCC	CTC	AAT	GTC	AAG	GGC	AAG	GAG	GAG	GTC	GCT	ATG	GCG	TAC	GAC	ACA	CGG	CAC	GAC	CTC	GGG	CGG	GAG	TTA	CAG	TTC	CCG	TTC	CTC	CTC	CAG	CGA																												
Y	R	M	L	C	A	V	L	E	P	A	L	N	V	K	G	K	E	E	V	A																																																	
1010										1020										1030										1040										1050										1060										1070									
*										*										*										*										*										*																			
AGT	GCA	CTG	GTT	CAC	ATC	CTG	CAA	AGC	ACA	GGC	AAG	GCC	AAG	GAC	TTC	CTT	TCA	GAC	ATG	GCC	TCA	CGT	GAC	CAA	GTG	TAG	GAC	GTT	TCG	TGT	CCG	TTC	CGG	TTC	CTG	AAG	GAA	AGT	CTG	TAC	CGG																												
S	A	L	V	H	I	L	Q	S	T	G	K	A	K	D	F	L	S	D	M	A																																																	
1080										1090										1100										1110										1120										1130																			
*										*										*										*										*										*																			
ATG	TCA	GAG	GTA	GAC	CGG	TTC	ATG	GAG	CGG	GAA	CAC	CTC	ATA	TTC	CGC	GAG	AAC	ACG	CTC	GCC	TAC	AGT	CTC	CTG	GCC	AAG	TAC	CTC	GCC	GAA	CTT	GTG	GAG	TAT	AAG	GCG	CTC	TTG	TGC	GAG	CGG																												
M	S	E	V	D	R	F	M	E	R	E	H	L	I	F	R	E	N	T	L	A																																																	
1140										1150										1160										1170										1180										1190																			
*										*										*										*										*										*																			
ACT	AAA	GCC	ATA	GAA	GAG	TAT	ATG	AGA	CTG	ATT	GGC	CAG	AAA	TAC	CTC	AAG	GAT	GCC	ATT	GGG	TGA	TTT	CGG	TAT	CTT	CTC	ATA	TAC	TCT	GAC	TAA	CCG	GTC	TTT	ATG	GAG	TTC	CTA	CGG	TAA	CCC																												
T	K	A	I	E	E	Y	M	R	L	I	G	Q	K	Y	L	K	D	A	I	G																																																	
1200										1210										1220										1230										1240										1250										1260									
*										*										*										*										*										*																			
GAG	TTC	ATC	CGG	GCT	CTG	TAT	GAA	TCT	GAG	GAG	AAC	TGT	GAA	GTA	GAC	CCC	ATC	AAG	TGC	ACA	CTC	AAG	TAG	GCC	CGA	GAC	ATA	CTT	AGA	CTC	CTC	TTG	ACA	CTT	CAT	CTG	GGG	TAG	TTC	ACG	TGT																												
E	F	I	R	A	L	Y	E	S	E	E	N	C	E	V	D	P	I	K	C	T																																																	

FIGURE 3B



1270					1280					1290					1300					1310					1320									
* * * * *																																		
GCG	TCC	AGT	CTG	GCA	GAG	CAC	CAG	GCC	AAC	CTG	CGG	ATG	TGC	TGT	GAG	TTG	GCC	CTG	TGC	AAG														
CGC	AGG	TCA	GAC	CGT	CTC	GTG	GTC	CGG	TTG	GAC	GCC	TAC	ACG	ACA	CTC	AAC	CGG	GAC	ACG	TTC														
A	S	S	L	A	E	H	Q	A	N	L	R	M	C	C	E	L	A	L	C	K														
1330					1340					1350					1360					1370					1380									
* * * * *																																		
GTG	GTC	AAC	TCC	CAT	TGC	GTG	TTC	CCG	AGG	GAG	CTG	AAG	GAG	GTG	TTT	GCA	TCA	TGG	CGG	CTG														
CAC	CAG	TTG	AGG	GTA	ACG	CAC	AAG	GGC	TCC	CTC	GAC	TTT	CTC	CAC	AAA	CGT	AGT	ACC	GCC	GAC														
V	V	N	S	H	C	V	F	P	R	E	L	K	E	V	F	A	S	W	R	L														
1390					1400					1410					1420					1430					1440									
* * * * *																																		
CGC	TGT	GCA	GAG	CGG	GGC	CGG	GAG	GAC	ATT	GCT	GAC	AGG	CTG	ATC	AGC	GCC	TCG	CTC	TTC	CTG														
GCG	ACA	CGT	CTC	GCC	CCG	GCC	CTC	CTG	TAA	CGA	CTG	TCC	GAC	TAG	TCG	CGG	AGC	GAG	AAG	GAC														
R	C	A	E	R	G	R	E	D	I	A	D	R	L	I	S	A	S	L	F	L														
1450					1460					1470					1480					1490					1500					1510				
* * * * *																																		
CGC	TTC	CTC	TGC	CCG	GCC	ATC	ATG	TCG	CCC	AGT	CTG	TTT	GGA	CTG	ATG	CAG	GAG	TAC	CCA	GAT														
GCG	AAG	GAG	ACG	GGC	CGG	TAG	TAC	AGC	GGG	TCA	GAC	AAA	CCT	GAC	TAC	GTC	CTC	ATG	GGT	CTA														
R	F	L	C	P	A	I	M	S	P	S	L	F	G	L	M	Q	E	Y	P	D														
1520					1530					1540					1550					1560					1570									
* * * * *																																		
GAG	CAG	ACC	TCA	CGA	ACC	CTC	ACC	CTC	ATC	GCC	AAG	GTT	ATC	CAG	AAC	CTG	GCC	AAC	TTT	TCC														
CTC	GTC	TGG	AGT	GCT	TGG	GAG	TGG	GAG	TAG	CGG	TTC	CAA	TAG	GTC	TTG	GAC	CGG	TTG	AAA	AGG														
E	Q	T	S	R	T	L	T	L	I	A	K	V	I	Q	N	L	A	N	F	S														
1580					1590					1600					1610					1620					1630									
* * * * *																																		
AAG	TTT	ACC	TCA	AAG	GAG	GAC	TTC	CTG	GGC	TTC	ATG	AAC	GAG	TTT	CTG	GAG	CTG	GAA	TGG	GGT														
TTC	AAA	TGG	AGT	TTC	CTC	CTG	AAG	GAC	CCG	AAG	TAC	TTG	CTC	AAA	GAC	CTC	GAC	CTT	ACC	CCA														
K	F	T	S	K	E	D	F	L	G	F	M	N	E	F	L	E	L	E	W	G														
1640					1650					1660					1670					1680					1690					1700				
* * * * *																																		
TCT	ATG	CAG	CAA	TTC	TTG	TAT	GAG	ATA	TCC	AAC	CTG	GAC	ACA	CTG	ACC	AAC	AGC	AGC	AGT	TTT														
AGA	TAC	GTC	GTT	AAG	AAC	ATA	CTC	TAT	AGG	TTG	GAC	CTG	TGT	GAC	TGG	TTG	TCG	TCG	TCA	AAA														
S	M	Q	Q	F	L	Y	E	I	S	N	L	D	T	L	T	N	S	S	S	F														
1710					1720					1730					1740					1750					1760									
* * * * *																																		
GAG	GGC	TAC	ATA	GAC	TTG	GGC	CGC	GAG	CTC	TCC	ACA	CTT	CAC	GCC	CTG	CTC	TGG	GAG	GTG	CTG														
CTC	CCG	ATG	TAT	CTG	AAC	CCG	GCG	CTC	GAG	AGG	TGT	GAA	GTG	CGG	GAC	GAG	ACC	CTC	CAC	GAC														
E	G	Y	I	D	L	G	R	E	L	S	T	L	H	A	L	L	W	E	V	L														
1770					1780					1790					1800					1810					1820									
* * * * *																																		
CCC	CAG	CTC	AGC	AAG	GAA	GCC	CTC	CTG	AAG	CTG	GGC	CCG	CTG	CCC	CGG	CTC	CTC	AGC	GAC	ATC														
GGG	GTC	GAG	TCG	TTC	CTT	CGG	GAG	GAC	TTC	GAC	CCG	GGC	GAC	GGG	GCC	GAG	GAG	TCG	CTG	TAG														
P	Q	L	S	K	E	A	L	L	K	L	G	P	L	P	R	L	L	S	D	I														
1830					1840					1850					1860					1870					1880					1890				
* * * * *																																		
AGC	ACA	GCC	CTG	AGG	AAC	CCT	AAC	ATC	CAA	AGG	CAG	CCG	AGC	CGC	CAG	AGC	GAG	CGC	GCT	CGG														
TCG	TGT	CGG	GAC	TCC	TTG	GGA	TTG	TAG	GTT	TCC	GTC	GGC	TCG	GCG	GTC	TCG	CTC	GCG	CGA	GCC														
S	T	A	L	R	N	P	N	I	Q	R	Q	P	S	R	Q	S	E	R	A	R														

FIGURE 3C



1900				1910				1920				1930				1940				1950							
TCT	CAG	CCC	ATG	GTG	CTG	CGC	GGG	CCG	TCA	GCC	GAA	ATG	CAG	GGC	TAC	ATG	ATG	CGG	GAC	CTC							
AGA	GTC	GGG	TAC	CAC	GAC	GCG	CCC	GGC	AGT	CGG	CTT	TAC	GTC	CCG	ATG	TAC	TAC	GCC	CTG	GAG							
S	Q	P	M	V	L	R	G	P	S	A	E	M	Q	G	Y	M	M	R	D	L							
1960				1970				1980				1990				2000				2010							
AAC	AGC	TCC	ATC	GAC	CTT	CAG	TCC	TTC	ATG	GCT	CGA	GGC	CTC	AAC	AGC	TCT	ATG	GAC	ATG	GCT							
TTG	TCG	AGG	TAG	CTG	GAA	GTC	AGG	AAG	TAC	CGA	GCT	CCG	GAG	TTG	TCG	AGA	TAC	CTG	TAC	CGA							
N	S	S	I	D	L	Q	S	F	M	A	R	G	L	N	S	S	M	D	M	A							
2020				2030				2040				2050				2060				2070							
CGC	CTC	CCC	TCC	CCA	ACC	AAG	GAG	AAA	CCC	CCG	CCG	CCC	CCT	CCC	GGT	GGG	GGT	AAA	GAC	CTG							
GCG	GAG	GGG	AGG	GGT	TGG	TTC	CTC	TTT	GGG	GGC	GGC	GGG	GGA	GGG	CCA	CCC	CCA	TTT	CTG	GAC							
R	L	P	S	P	T	K	E	K	P	P	P	P	P	P	G	G	G	K	D	L							
2080				2090				2100				2110				2120				2130				2140			
TTC	TAT	GTG	AGC	CGG	CCA	CCA	CTG	GCC	CGG	TCC	TCC	CCA	GCA	TAC	TGC	ACG	AGC	AGC	TCG	GAC							
AAG	ATA	CAC	TCG	GCC	GGT	GGT	GAC	CGG	GCC	AGG	AGG	GGT	CGT	ATG	ACG	TGC	TCG	TCG	AGC	CTG							
F	Y	V	S	R	P	P	L	A	R	S	S	P	A	Y	C	T	S	S	S	D							
2150				2160				2170				2180				2190				2200							
ATC	ACA	GAG	CCG	GAG	CAG	AAG	ATG	CTG	AGT	GTC	AAC	AAG	AGT	GTG	TCC	ATG	CTG	GAC	CTG	CAG							
TAG	TGT	CTC	GGC	CTC	GTC	TTC	TAC	GAC	TCA	CAG	TTG	TTC	TCA	CAC	AGG	TAC	GAC	CTG	GAC	GTC							
I	T	E	P	E	Q	K	M	L	S	V	N	K	S	V	S	M	L	D	L	Q							
2210				2220				2230				2240				2250				2260							
GGC	GAC	GGG	CCT	GGG	GGC	CGC	CTT	AAC	AGC	AGT	AGT	GTT	TCC	AAC	CTG	GCA	GCT	GTT	GGG	GAC							
CCG	CTG	CCC	GGA	CCC	CCG	GCG	GAA	TTG	TCG	TCA	TCA	CAA	AGG	TTG	GAC	CGT	CGA	CAA	CCC	CTG							
G	D	G	P	G	G	R	L	N	S	S	S	V	S	N	L	A	A	V	G	D							
2270				2280				2290				2300				2310				2320				2330			
CTG	TTG	CAC	TCA	AGC	CAG	GCT	TCA	CTG	ACA	GCA	GCC	TTG	GGG	TTG	CGG	CCT	GCA	CCT	GCC	GGG							
GAC	AAC	GTG	AGT	TCG	GTC	CGA	AGT	GAC	TGT	CGT	CGG	AAC	CCC	AAC	GCC	GGA	CGT	GGA	CGG	CCC							
L	L	H	S	S	Q	A	S	L	T	A	A	L	G	L	R	P	A	P	A	G							
2340				2350				2360				2370				2380				2390							
CGC	CTC	TCC	CAA	GGG	AGT	GGC	TCT	TCC	ATC	ACA	GCA	GCC	GGC	ATG	CGC	CTC	AGC	CAG	ATG	GGT							
GCG	GAG	AGG	GTT	CCC	TCA	CCG	AGA	AGG	TAG	TGT	CGT	CGG	CCG	TAC	GCG	GAG	TCG	GTC	TAC	CCA							
R	L	S	Q	G	S	G	S	S	I	T	A	A	G	M	R	L	S	Q	M	G							
2400				2410				2420				2430				2440				2450							
GTC	ACT	ACG	GAT	GGT	GTC	CCC	GCC	CAG	CAA	CTG	CGC	ATC	CCT	CTT	TCC	TTC	CAG	AAC	CCT	CTC							
CAG	TGA	TGC	CTA	CCA	CAG	GGG	CGG	GTC	GTT	GAC	GCG	TAG	GGA	GAA	AGG	AAG	GTC	TTG	GGA	GAG							
V	T	T	D	G	V	P	A	Q	Q	L	R	I	P	L	S	F	Q	N	P	L							
2460				2470				2480				2490				2500				2510				2520			
TTC	CAT	ATG	GCT	GCC	GAT	GGA	CCA	GGG	CCC	CCA	GCA	GGC	CAT	GGA	GGG	AGC	AGT	GGC	CAT	GGT							
AAG	GTA	TAC	CGA	CGG	CTA	CCT	GGT	CCC	GGG	GGT	CGT	CCG	GTA	CCT	CCC	TCG	TCA	CCG	GTA	CCA							
F	H	M	A	A	D	G	P	G	P	P	A	G	H	G	G	S	S	G	H	G							

FIGURE 3D



2530	2540	2550	12560	2570	2580				
* CCA CCT TCC TCC CAT CAC CAC CAC CAC CAC CAT CAC CAT CAC CGA GGG GGA GAA CCC CCA GGG GGT GGA AGG AGG GTA GTG GTG GTG GTG GTG GTG GTG GCT CCC CCT CTT GGG GGT CCC P P S S H H H H H H H H R G G E P P G	* GAC ACT TTT GCC CCG TTC CAT GGC TAT AGC AAG AGC GAG GAC CTC TCT ACA GGG GTC CCT AAG CTG TGA AAA CGG GGC AAG GTA CCG ATA TCG TTC TCG CTC CTG GAG AGA TGT CCC CAG GGA TTC D T F A P F H G Y S K S E D L S T G V P K	* CCC CCT GCG GCC TCC ATC CTT CAC AGC CAC AGC TAC AGT GAT GAG TTT GGA CCC TCT GGT ACT GGG GGA CGC CGG AGG TAG GAA GTG TCG GTG TCG ATG TCA CTA CTC AAA CCT GGG AGA CCA TGA P P A A S I L H S H S Y S D E F G P S G T	* GAT TTT ACC CGT CGG CAG CTC TCA CTT CAG GAC AAC CTA CAG CAC ATG CTC TCC CCG CCC CAG CTA AAA TGG GCA GCC GTC GAG AGT GAA GTC CTG TTG GAT GTC GTG TAC GAG AGG GGC GGG GTC D F T R R Q L S L Q D N L Q H M L S P P Q	* ATC ACC ATC GGT CCC CAG AGG CCA GCT CCC TCA GGG CCA GGA GGG GGC AGT GGT GGG GGC AGT TAG TGG TAG CCA GGG GTC TCC GGT CGA GGG AGT CCC GGT CCT CCC CCG TCA CCA CCC CCG TCA I T I G P Q R P A P S G P G G S G G G S	* GGT GGG GGC GGT GGG GGC CAG CCA CCT CCC TTG CAG AGG GGC AAA TCT CAG CAG TTG ACA GTG CCA CCC CCG CCA CCC CCG GTC GGT GGA GGG AAC GTC TCC CCG TTT AGA GTC GTC AAC TGT CAC G G G G G G Q P P P L Q R G K S Q Q L T V	* AGT GCT GCC CAG AAA CCC CGG CCG TCC AGC GGG AAC CTA TTG CAG TCC CCG GAA CCA AGT TAT TCA CGA CGG GTC TTT GGG GCC GGC AGG TCG CCC TTG GAT AAC GTC AGG GGC CTT GGT TCA ATA S A A Q K P R P S S G N L L Q S P E P S Y	* GGT CCT GCC CGT CCA CGG CAA CAG AGC CTC AGC AAA GAG GGC AGC ATT GGG GGC AGC GGG GGC CCA GGA CGG GCA GGT GCC GTT GTC TCG GAG TCG TTT CTC CCG TCG TAA CCC CCG TCG CCC CCG G P A R P R Q Q S L S K E G S I G G S G G	* AGC GGT GGC GGA GGG GGT GGG GGG CTC AAG CCC TCC ATC ACC AAG CAG CAT TCC CAG ACT CCA TCG CCA CCG CCT CCC CCA CCC CCC GAG TTC GGG AGG TAG TGG TTC GTC GTA AGG GTC TGA GGT S G G G G G G G L K P S I T K Q H S Q T P	* TCC ACG CTG AAC CCC ACG ATG CCG GCC TCG GAG CGG ACT GTA GCC TGG GTG TCC AAT ATG CCT AGG TGC GAC TTG GGG TGC TAC GGC CGG AGC CTC GCC TGA CAT CGG ACC CAC AGG TTA TAC GGA S T L N P T M P A S E R T V A W V S N M P

FIGURE 3E



3160					3170					3180					3190					3200					3210									
CAC	CTG	TCC	GCT	GAC	ATC	GAG	AGT	GCA	CAC	ATT	GAG	CGG	GAA	GAG	TAC	AAG	CTG	AAG	GAG	TAC														
GTG	GAC	AGG	CGA	CTG	TAG	CTC	TCA	CGT	GTG	TAA	CTC	GCC	CTT	CTC	ATG	TTC	GAC	TTC	CTC	ATG														
H	L	S	A	D	I	E	S	A	H	I	E	R	E	E	Y	K	L	K	E	Y														
3220					3230					3240					3250					3260					3270									
TCG	AAG	TCC	ATG	GAC	GAG	AGC	CGA	CTG	GAC	AGG	GTG	AAG	GAG	TAC	GAG	GAG	GAG	ATC	CAC	TCA														
AGC	TTC	AGG	TAC	CTG	CTC	TCG	GCT	GAC	CTG	TCC	CAC	TTC	CTC	ATG	CTC	CTC	CTC	TAG	GTG	AGT														
S	K	S	M	D	E	S	R	L	D	R	V	K	E	Y	E	E	E	I	H	S														
3280					3290					3300					3310					3320					3330									
CTG	AAG	GAA	AGG	CTA	CAC	ATG	TCC	AAC	CGG	AAG	CTG	GAA	GAG	TAC	GAG	CGG	AGG	CTG	CTG	TCC														
GAC	TTC	CTT	TCC	GAT	GTG	TAC	AGG	TTG	GCC	TTC	GAC	CTT	CTC	ATG	CTC	GCC	TCC	GAC	GAC	AGG														
L	K	E	R	L	H	M	S	N	R	K	L	E	E	Y	E	R	R	L	L	S														
3340					3350					3360					3370					3380					3390					3400				
CAG	GAA	GAG	CAG	ACC	AGC	AAG	ATC	CTG	ATG	CAG	TAC	CAA	GCC	CGC	CTG	GAG	CAG	AGC	GAG	AAG														
GTC	CTT	CTC	GTC	TGG	TCG	TTC	TAG	GAC	TAC	GTC	ATG	GTT	CGG	GCG	GAC	CTC	GTC	TCG	CTC	TTC														
Q	E	E	Q	T	S	K	I	L	M	Q	Y	Q	A	R	L	E	Q	S	E	K														
3410					3420					3430					3440					3450					3460									
CGC	TTG	AGG	CAG	CAG	CAG	GTG	GAG	AAG	GAC	TCC	CAG	ATC	AAG	AGC	ATC	ATT	GGC	AGG	CTG	ATG														
GCG	AAC	TCC	GTC	GTC	GTC	CAC	CTC	TTC	CTG	AGG	GTC	TAG	TTC	TCG	TAG	TAA	CCG	TCC	GAC	TAC														
R	L	R	Q	Q	Q	V	E	K	D	S	Q	I	K	S	I	I	G	R	L	M														
3470					3480					3490					3500					3510					3520									
CTG	GTG	GAG	GAG	GAG	CTG	CGC	CGG	GAC	CAC	CCC	GCC	ATG	GCT	GAG	CCG	CTG	CCT	GAA	CCC	AAG														
GAC	CAC	CTC	CTC	CTC	GAC	GCG	GCC	CTG	GTG	GGG	CGG	TAC	CGA	CTC	GGC	GAC	GGA	CTT	GGG	TTC														
L	V	E	E	E	L	R	R	D	H	P	A	M	A	E	P	L	P	E	P	K														
3530					3540					3550					3560					3570					3580					3590				
AAG	AGG	CTG	CTC	GAC	GCT	CAG	AGA	GGC	AGC	TTC	CCC	CCT	TGG	GTC	CAA	CAA	ACC	CGC	GTG	TGA														
TTC	TCC	GAC	GAG	CTG	CGA	GTC	TCT	CCG	TCG	AAG	GGG	GGA	ACC	CAG	GTT	GTT	TGG	GCG	CAC	ACT														
K	R	L	L	D	A	Q	R	G	S	F	P	P	W	V	Q	Q	T	R	V	*														
3600					3610					3620					3630					3640					3650									
CGC	TGG	CCC	CAC	CTT	GGA	ACG	GCC	TGG	CCC	CCC	CAG	CCC	CAC	CCC	CCC	CAC	CCC	GGC	TGC	AGA														
GCG	ACC	GGG	GTG	GAA	CCT	TGC	CGG	ACC	GGG	GGG	GTC	GGG	GTG	GGG	GGG	GTG	GGG	CCG	ACG	TCT														
R	W	P	H	L	G	T	A	W	P	P	Q	P	H	P	P	H	P	G	C	R														
3660					3670					3680					3690					3700					3710									
TCA	CAG	AGA	ACG	GCG	AGT	TCC	GGA	ACA	CCG	CAG	ACC	ACT	AGC	CCA	CCC	AGC	ATC	ACA	GAC	CTC														
AGT	GTC	TCT	TGC	CGC	TCA	AGG	CCT	TGT	GGC	GTC	TGG	TGA	TCG	GGT	GGG	TCG	TAG	TGT	CTG	GAG														
S	Q	R	T	A	S	S	G	T	P	Q	T	T	S	P	P	S	I	T	D	L														
3720					3730					3740					3750					3760					3770					3780				
CTT	CCC	TGT	GCA	CCC	TAC	CCC	GGC	CCA	CCC	AGC	GTC	ACA	GAC	CTC	CTT	CCC	AGT	GCA	CCC	GAC														
GAA	GGG	ACA	CGT	GGG	ATG	GGG	CCG	GGT	GGG	TCG	CAG	TGT	CTG	GAG	GAA	GGG	TCA	CGT	GGG	CTG														
L	P	C	A	P	Y	P	G	P	P	S	V	T	D	L	L	P	S	A	P	D														

FIGURE 3F



3790	3800	3810	3820	3830	3840
* CCT GGA ACA TCA CCA ACC ACC AGG ACT GGA CGT CAC CAA GGG ACA GCG GGA TTG TCT CCC TTA GGA CCT TGT AGT GGT TGG TGG TCC TGA CCT GCA GTG GTT CCC TGT CGC CCT AAC AGA GGG AAT P G T S P T T R T G R H Q G T A G L S P L	* ACG CCT CCT TGG GGC ACC CAT CTG TCA ACC CCA CTG CTC CAT TCC AGG AGG GAG AGT GGG ACC TGC GGA GGA ACC CCG TGG GTA GAC AGT TGG GGT GAC GAG GTA AGG TCC TCC CTC TCA CCC TGG T P P W G T H L S T P L L H S R R E S G T	* CTC AGC TGC CCT CTC ACC CCA GGA CAC CAC CTA CCC CAC ACA GAC CCC TTC ACT CTG GGG TGC GAG TCG ACG GGA GAG TGG GGT CCT GTG GTG GAT GGG GTG TGT CTG GGG AAG TGA GAC CCC ACG L S C P L T P G H H L P H T D P F T L G C	* TAT CCC CAT CCT ATA GGG GTA GGA Y P H P	* TAT CCC CAT CCT ATA GGG GTA GGA Y P H P	* TAT CCC CAT CCT ATA GGG GTA GGA Y P H P

FIGURE 3F



1	MQSFKESHSHESLLSPSSAAEALELNLDSDSI IKPVHSSILGQEFCEVTTSSGTKCFAC	60
61	RSAAERDKWIENLQRAVKPNKDNSRRVDNVLKLWII EARELPKKRYYCELCLDDMLYAR	120
121	TTSKPRSASGDTVFWGEHFEFNNLPAVRALRLHLYRDSDKKRKKDKAGYVGLVTVPVATL	180
181	AGRHFTEQWYPVTLPTGSGGSGGMGSGGGGSGGGSGGKGKGGCPAVRLKARYQTMSILP	240
241	MELYKEFAEYVTNHYRMLCAVLEPALNVKGKEEVASALVHILQSTGKAKDFLSDMAMSEV	300
301	DRFMEREHLIFRENTLATKAIEEYMRLIGQKYLKDAIGEFIRALYESEENCEVDPIKCTA	360
361	SSLAEHQANLRMCCELALCKVVNSHCVFPRELKEVFASWRLRCAERGREDIADRLISASL	420
421	FLRFLCPAIMSPSLFGLMQEYPDEQTSRTLTLIAKVIQNLANSKFTSKEDFLGFMNEFL	480
481	ELEWGSMQQFLYEISNLDTLTNSSSFEGYIDLGRELSTLHALLWEVLPQLSKEALLKLGP	540
541	LPRLLSDISTALRNPNIQRQPSRQSERARSQPMVLRGPSAEMQGYMMRDLNSSIDLQSF	600
601	ARGLNSSMDMARLPSPTKEKPPPPPPGGGKDLFYVSRPPLARSSPAYCTSSSDITEPEQK	660
661	MLSVNKSVSMLDLQGDGPGGRLNSSSVSNLAAVGDLLHSSQASLTAALGLRPAPAGRLSQ	720
721	GSGSSITAAGMRLSQMGVTTDGVPAQQLRIPLSFQNPFLHMAADGPGPPAGHGGSSGHGP	780
781	PSSHHHHHHHHHRGGEPPGDTFAPFHGYKSEDLSTGVKPPAASILHSHSYSDEFGPS	840
841	GTDFTRRQLSLQDNLQHMLSPQITIGPQRPAPSGPGGGSGGGSGGGGGGQPPPLQRGKS	900
901	QQLTVSAAQKPRPSSGNLLQSPEPSYGPAPRQQSLSKEGSIGSGSGSGGGGGGGLKPSI	960
961	TKQHSQTPSTLNPTMPASERTVAWVSNMPHLSADIESAHIEREEYKLKEYSKSMDESRLD	1020
1021	RVKEYEEEIHSLKERLHMSNRKLEEYERRLLSQEEQTSKILMQYQARLEQSEKRLRQQQV	1080
1081	EKDSQIKSIIGRLMLVEEELRRDHPAMAEPLPEPKRLLDAQRGSFPPWVQQTRV	1135

FIGURE 4A

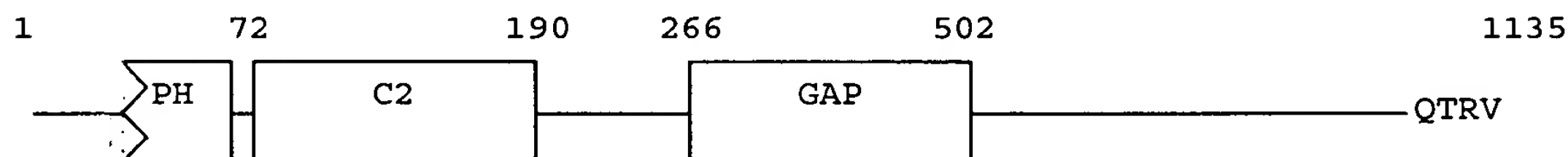


FIGURE 4B

				+	+	+		
GAPSYN	286		GKAKDFLSDMAMSEVDRFMEREHLIFRENTLATKAIEEYMRLIGQKYLKDAIGEFIRALYE				347	
rn	GAP	755	KLESLLLCTLNDRSIS-MEDEATTLEFRATTLASTLMEQYMKATATQFVHHALKDSILKIME				815	
hs	NF1	1251	HLLYQLLWNMFMSKEVE-LADSMQTLFRGNLSASKIMTFCFKVYGATYLOKLL-DPLLRIVI				1311	
GAPSYN	348		SEE-----NCEVDPIKCTAS-SLAEHQANLRMCCELALCKVVNSHCVFPRELKEVFASWRLR				403	
rn	GAP	816	SKQ-----SCELSPSKLEKNEDVNTNLAHLLSILSELVEKIFMASEILPPTLRYIYGCLQKS				872	
hs	NF1	1312	TSSDWQHVSFEVDPTRLEPSESLEENQRNLLQMTEKFFHAISSSSEFPPQLRSVCHCLYQV				1372	
				++	+		+	
GAPSYN	404		CAER--GREDIADRLISASLFLRFLCPAIMSPSLFGLMQEYPDEQTSRTLTLIAKVIQNLAN				463	
rn	GAP	873	VQHKWPTNNTMRTRVVSGFVFLRLICPAILNPRMFNIISDSPSPIAARTLTLVAKSVQNLAN				934	
hs	NF1	1373	VSQRFQNSIG---AVGSAMFLRFINPAIVSPYEAGILDKKPPPRIERGLKLSKILQSIAN				1430	
				++				
GAPSYN	464		FSKFTSKEDFLGFMNEFLELE-WGSMQQFLYEISNLDTLT				502	
rn	GAP	935	LVEFGAKEPYMEGVNPFIKSN-KHRMIMFLDELGNVPELP				973	
hs	NF1	1431	HVLF-TKEEHMRPFNDFVKSNFDAARRFFLDIASDCPTSD				1469	

FIGURE 4C



PLECKSTRIN HOMOLOGY (PH) DOMAIN ALIGNMENT

SynGAP-a	162	FKESHSHESL LP SSAA... ..EALEL NLD..... ..EDSIKK	192
Hs p120	471	FYKNIVKKG Y LLKKGKG... ..KRWKNLYF ILEGSDAQLI YFESEKRATK	515
Dm GAP1	759	PVLLKEGEGL MTKYPTSRKR FGRQFKQRHF RLTT..HSLS YAKSK..GKQ	804
Hs Plec	1	MEPKRIREGY LVKKGSV.....FNTWKPMWV VLLE..DGIE FYKKK.SDN	44

SynGAP-a	193	P..... ..VHSSIL GQ.EFCFEVT TSSGTKC... ..FACRSAAE	223
Hs p120	516	PKGLIDLSVC SVYVVHDSLF GR.PNCFQIV VQHFSEEHYI FYFAGETPEQ	564
Dm GAP1	805	PICDIPLQEI ASVEQLKDKS FKMQNCFKIV HNDRS..... LIVQTTNCVE	849
Hs Plec	45	PKGMIPLKGS TLTSPCQDFG KR.MFVFKIT TTKQQ....D HFFQAAFLEE	88

SynGAP-a	224	RDKWIENLQR AVKPNKDNSR	243
Hs p120	565	AEDWMKGLQA FCNLRKSSPG	584
Dm GAP1	850	EREWFDLLHK ICLMNSIRMQ	869
Hs Plec	89	RDAWVRDINK AIKCIEGGQK	108

FIGURE 5



C2 DOMAIN ALIGNMENT

SynGAP-a	245	..VDNVLKLW	..IIEARELP	....PKKRY.	YCELCL....	DDMLYARTTS	281
Hs p120	592	..QVSSLVLH	..IEEAHKLP	...VKHFTNP	YCNIYL....	NSVQVAKTH.	629
Rn Syt II	151	DYDFQANQLT	VGVLQAAELP	ALDMGGTSDP	YVKVFLLPD.	.KKKKYETKV	198
Bt Rab 3A	411	LYDQDNSSLK	CTIIKAKGLK	PMDSNGLADP	YVKLHLLPGA	SKSNKLRTKT	460

SynGAP-a	282	KPRSASGDTV	FWGEHFEFNN	LP.AVRALRL	HLYRD.SDKK	RKKDKAGYVG	329
Hs p120	630	...AREGQNP	VWSEEFVFDD	LPPDINRFEI	TL....SNKT	.KKSKDPDIL	671
Rn Syt II	199	...HRKTLNP	AFNETFTFKV	..PYQELGGK	TLVMAIYDFD	RF.SKHDIIG	242
Bt Rab 3A	462	...LRNTRNP	IWNETLVYHG	I.TDEDMQRK	TLRISVCDED	KF.GHNEFIG	505

SynGAP-a	330	LVTVPVAT..	.....	.LAGRHFTEQ	WY.PVT.LPT	354
Hs p120	672	FMRCQLSR..	.....	.LQKGHATDE	WFLSSHIPL	698
Rn Syt II	243	EVKVPMNTVD	.....	.L..GQPIEE	WRDLQG..G.	266
Bt Rab 3A	506	ETRFSLKKLK	PNQRK.NFNI	CL..ERVIPM	KRAGTTGSAR	542

FIGURE 6



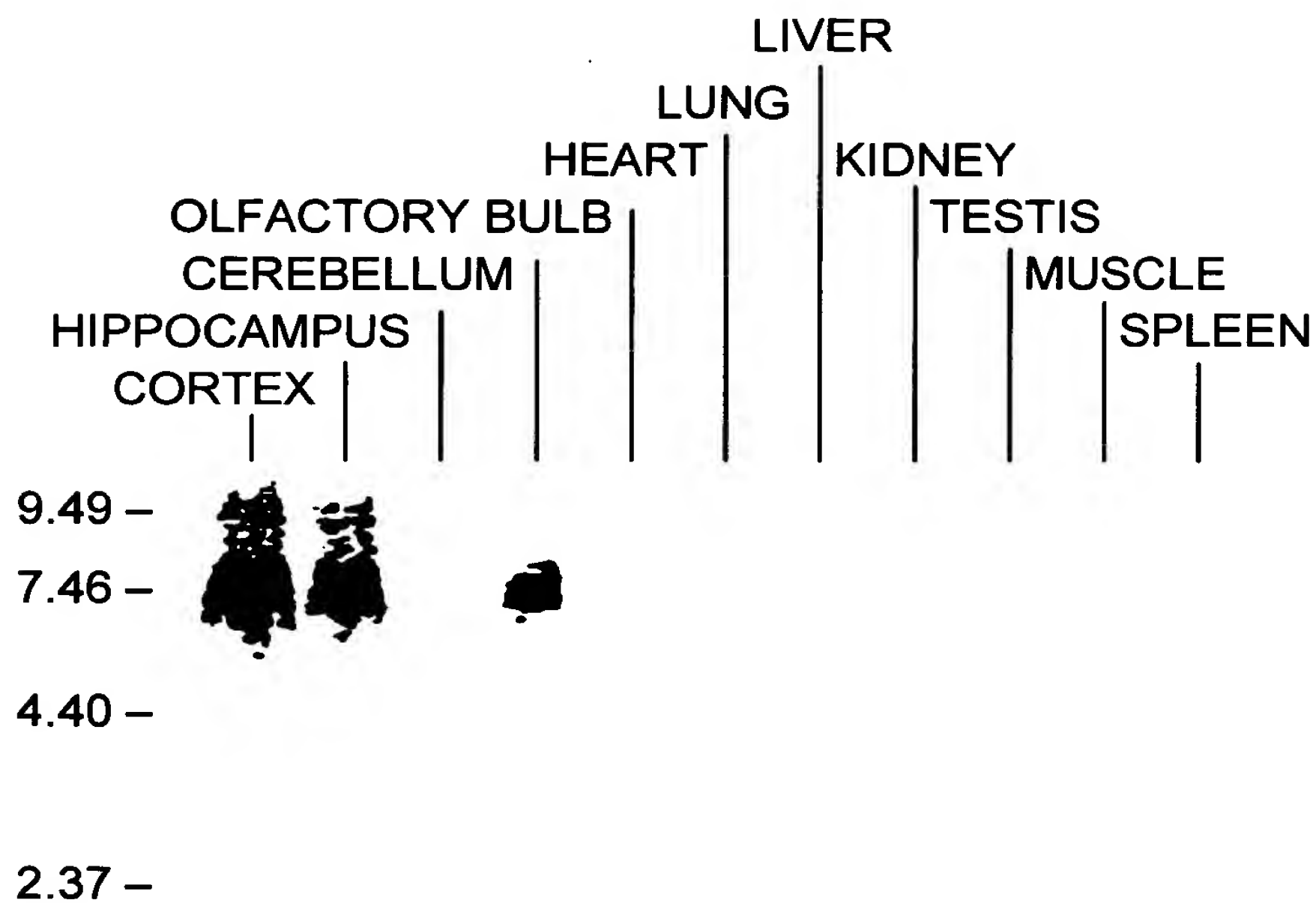


FIG. 7A

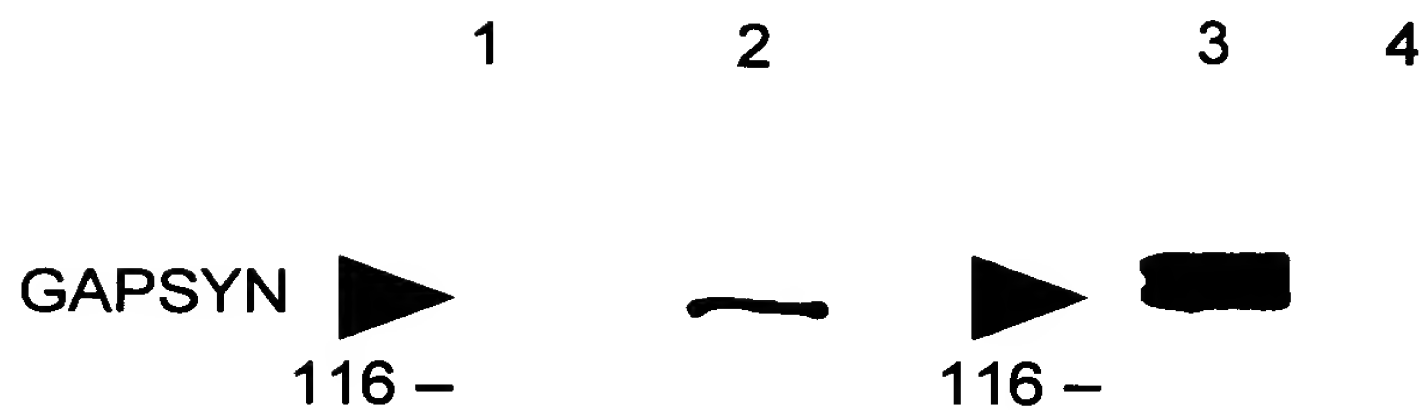


FIG. 7B



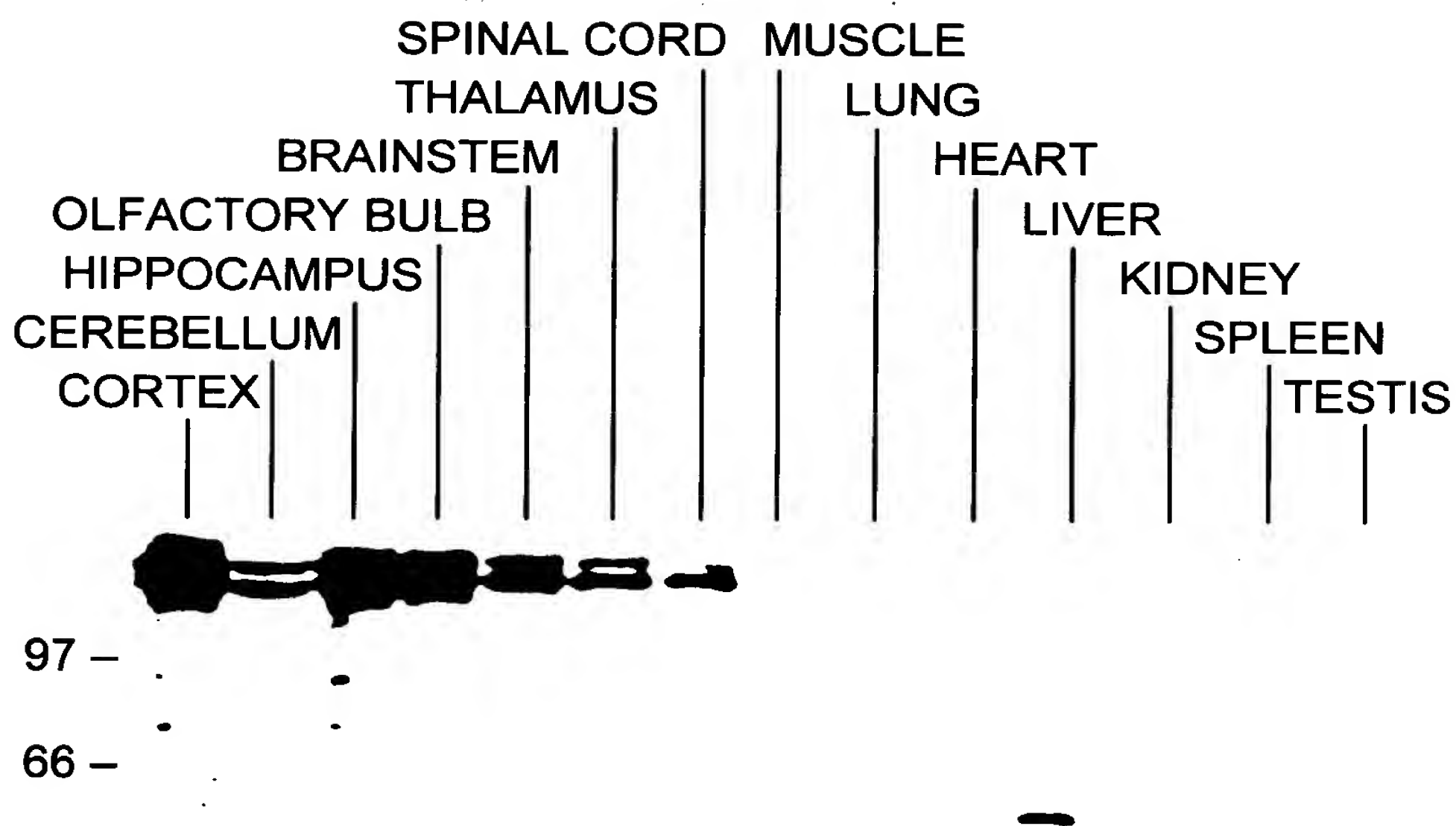
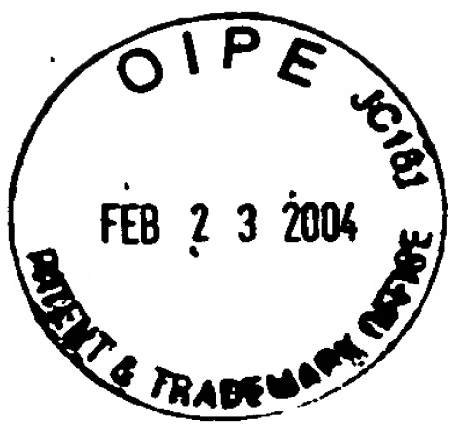


FIG. 7C

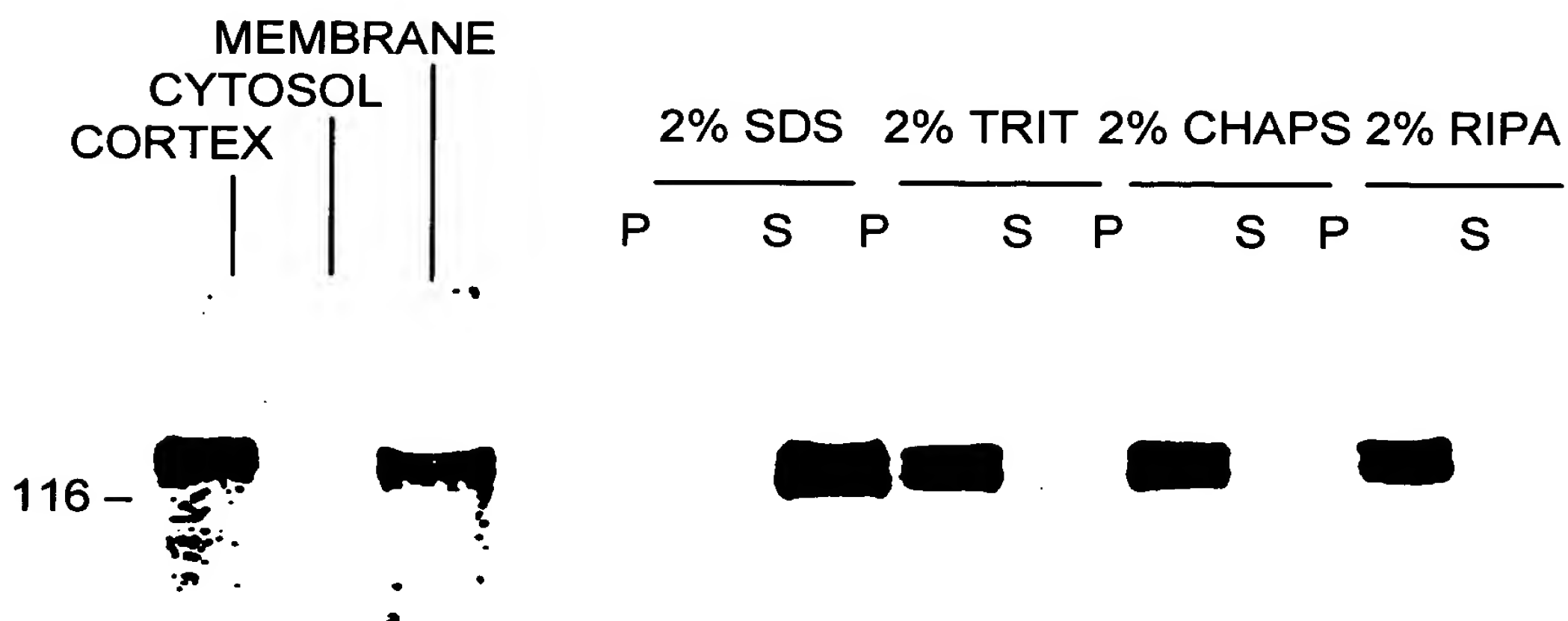


FIG. 7D

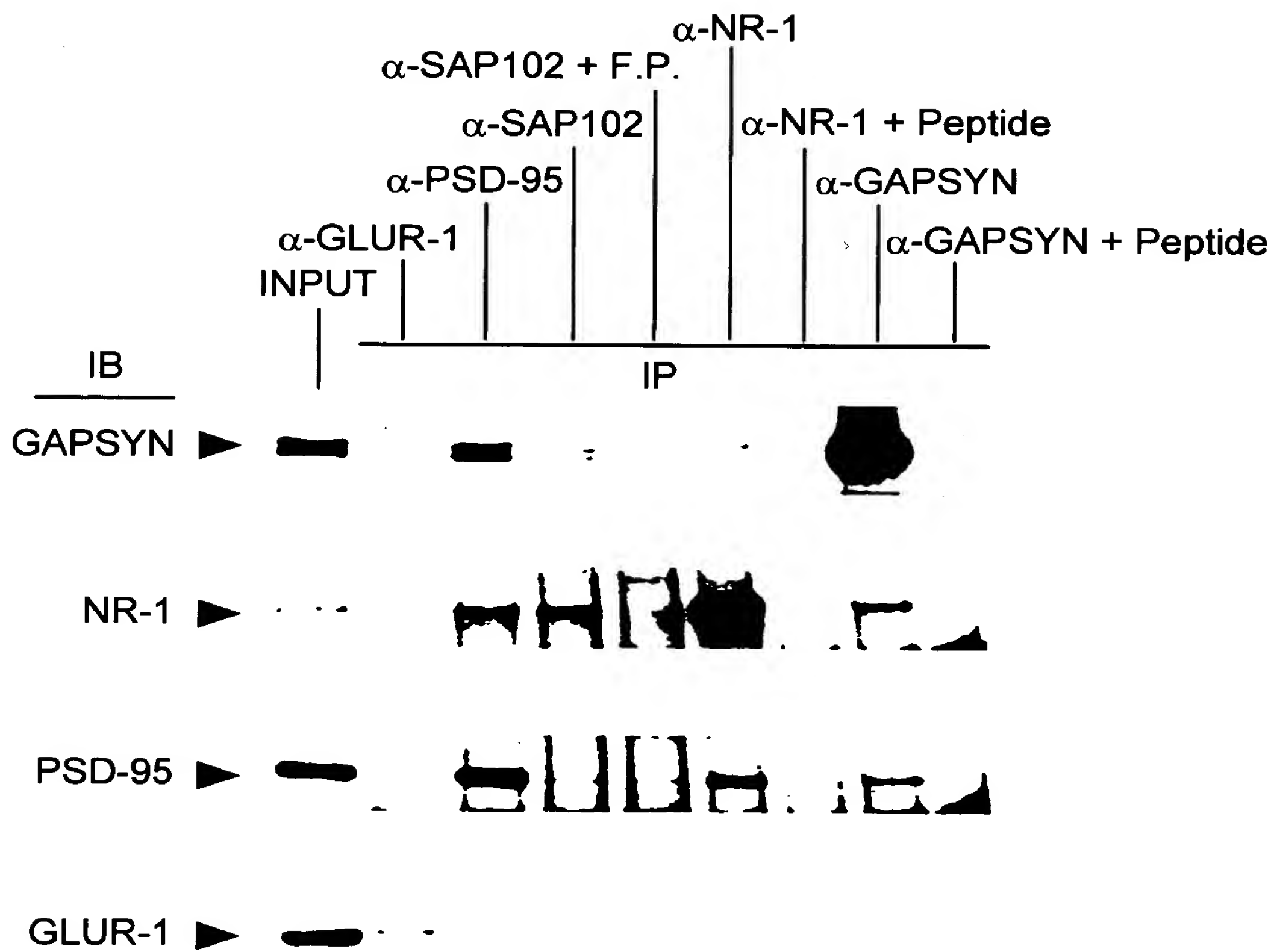


FIG. 8



GAPSYN



FIG. 9A

GAPSYN



FIG. 9B

SYNAPTOPHYSIN



FIG. 9C

OVERLAP



FIG. 9D

GAPSYN (BLOCK)

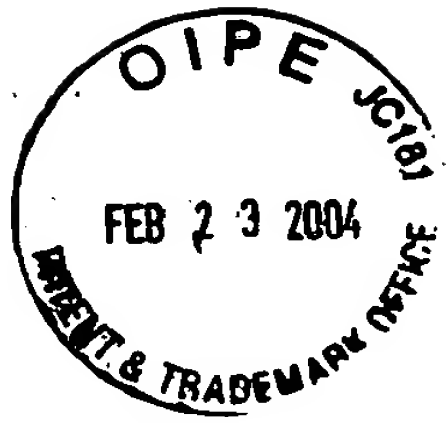


FIG. 9E

SYNAPTOPHYSIN



FIG. 9F



GAPSYN

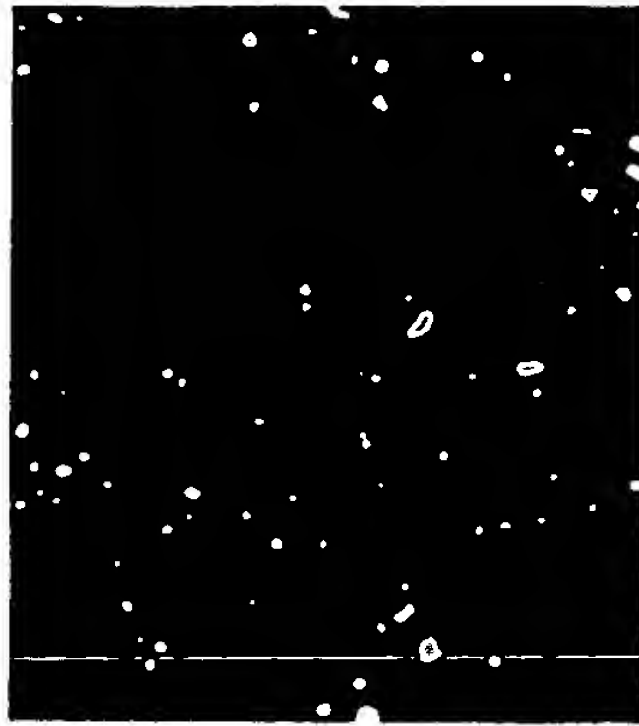


FIG. 10A

PSD-95



FIG. 10B

OVERLAP

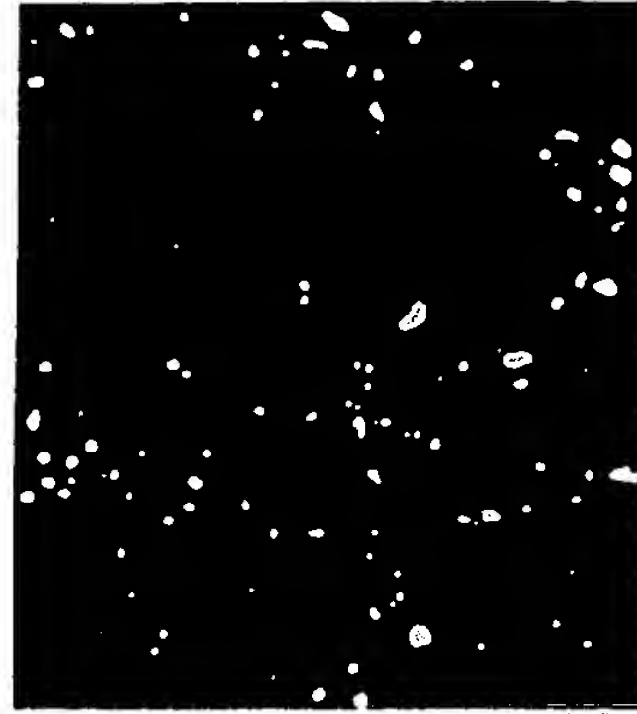


FIG. 10C



GAPSYN

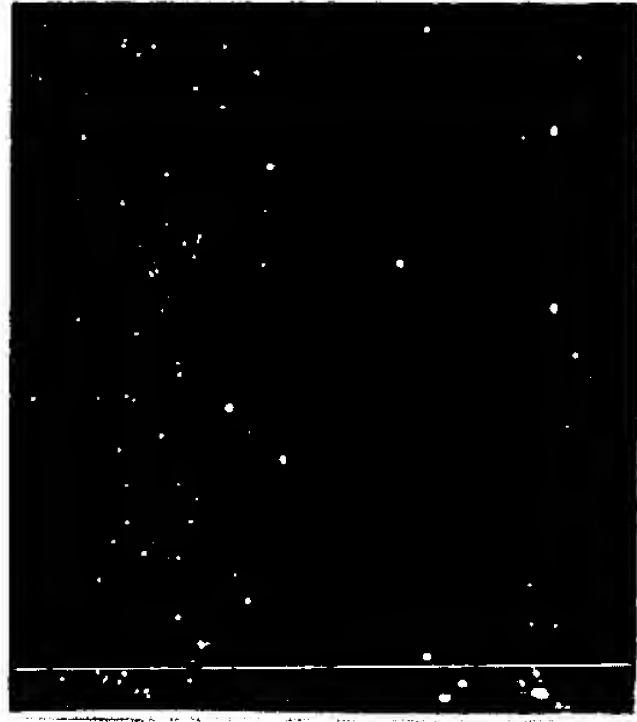


FIG. 10D

NR-1



FIG. 10E

OVERLAP

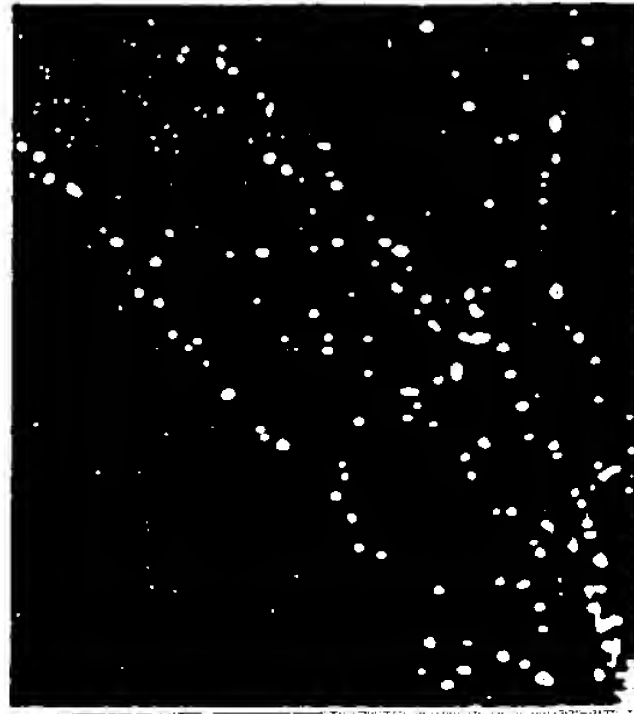


FIG. 10F

GAPSYN

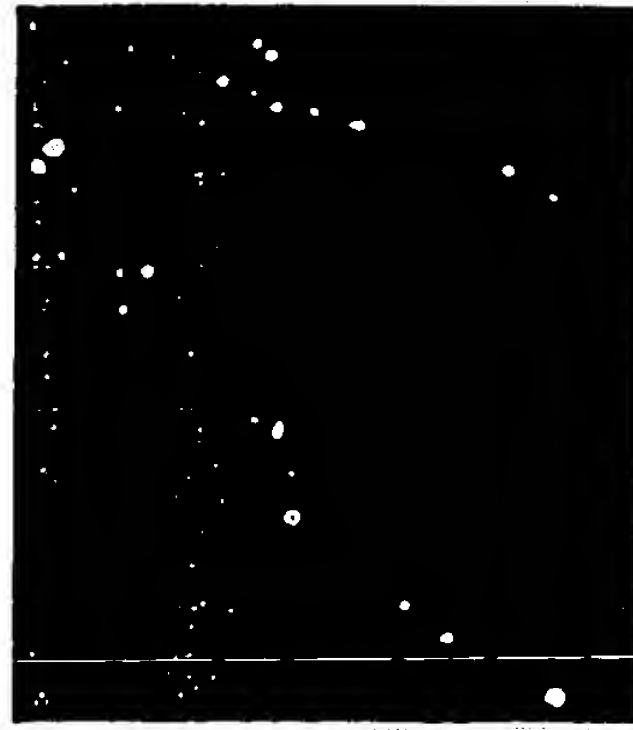


FIG. 10G

GAD



FIG. 10H

OVERLAP

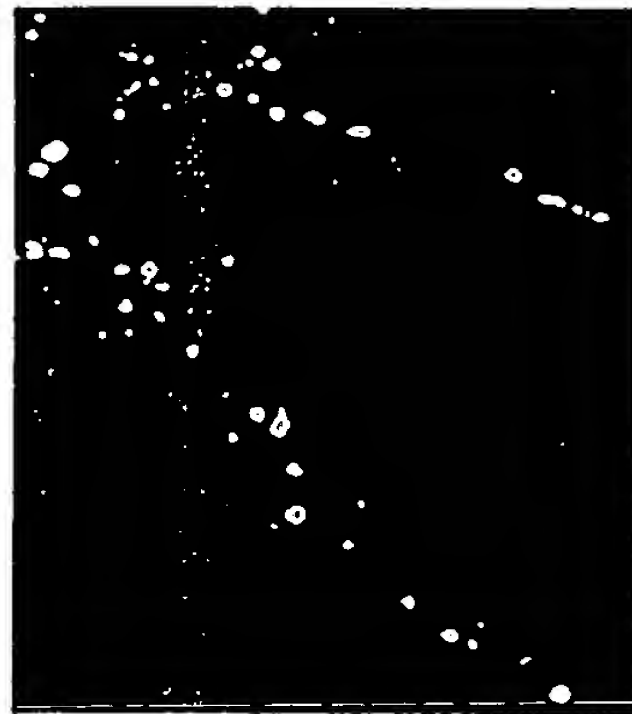


FIG. 10I

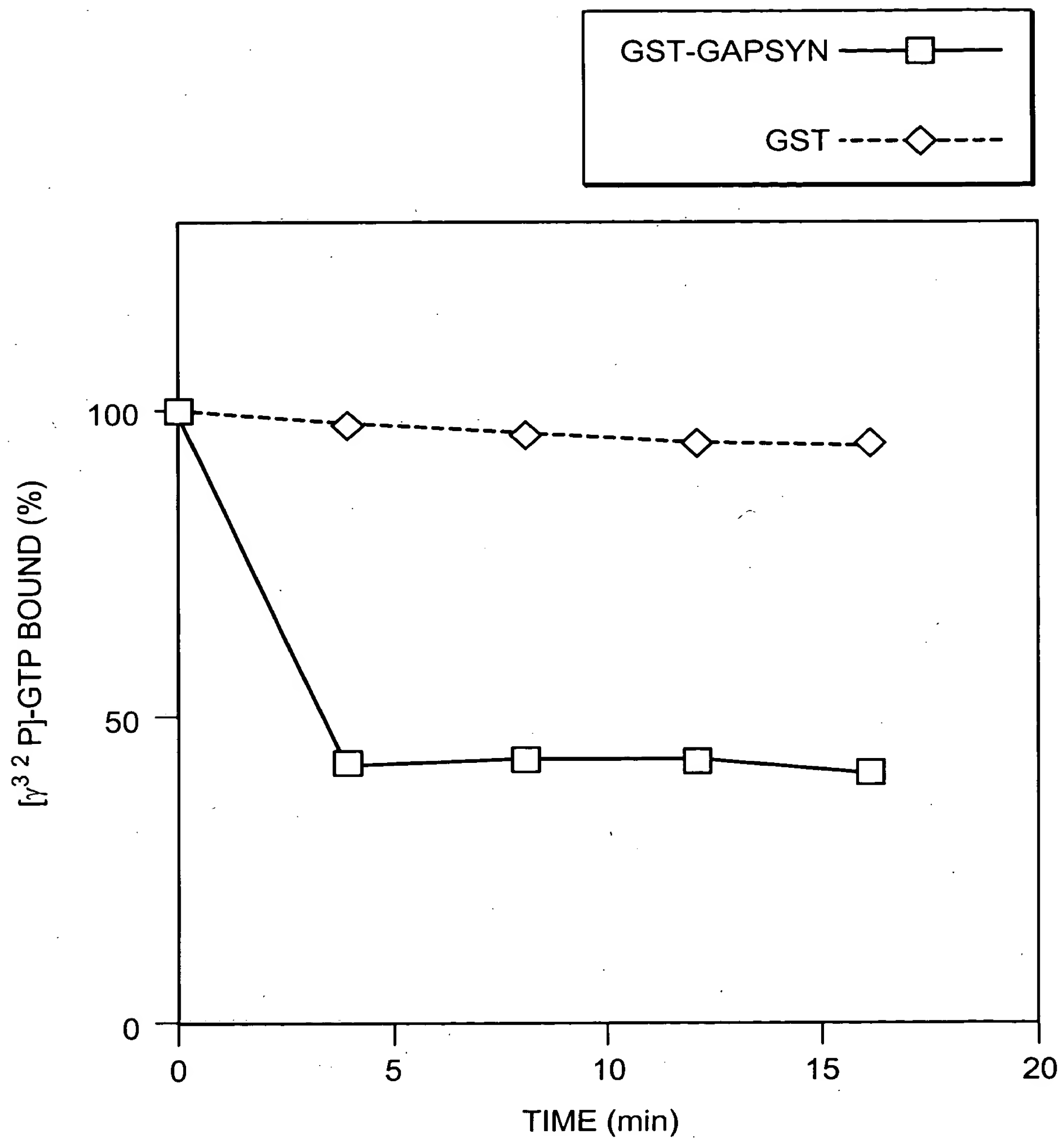


FIG. 11